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# **A Proposition “Bhutan is a Democracy”: Beyond the Constricted, Popular Wisdom of “Democracy”**

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## **Abstract**

This article seeks to dissect, with reference to Bhutan’s polity, how the Eurocentric, popular wisdom of democracy, privileging liberal democracy, inadvertently enforces closure to other plausible, non-liberalistic interpretations. In Bhutan, the monarchy and Buddhism carry moral authorities constraining the arbitrary use of governmental power, and nurturing associative bonds in society. This “natural democracy” contravenes the orthodoxy of liberal democracy, according to which the state, as a neutral arbiter, must not accord a special status to any leader or religion. For this reason, political analysts tend to doubt whether Bhutan is a democracy. The circumscribed, liberal-democratic notion emanates from the history in which European universalism has been fabricated as a universal standard to be disseminated throughout the globe. It has thus served to rank different societies in a linear trajectory that positions Europe at the pinnacle of “progress”. The case of Bhutan potentially helps to rectify the constricted wisdom of democracy, to facilitate more open, thorough deliberations, and to start conceptualizing a multipolar world.

## **Introduction**

[W]hether Bhutan is a democracy is doubtful. ... The King remains the ultimate authority though “political power” is handed over to the elected political

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executive. Minus king [sic] the politico-ideological edifice of Bhutanese political structure is incomplete. This is certainly against the spirit of democracy in its European and non-European meanings.

This is an excerpt from the comments of an in-house reviewer of a journal published by a major university in the US. The reviewer made the comment to the effect that my earlier article on Bhutan's democracy would not merit a full-fledged review. My article was to explore an alternate route to democracy other than the orthodox route. It was intended to call our attention to the country's time-honoured "home-grown natural democracy" (Dessallien, 2005, p.71), which rests on the benign monarchical authority and cohesive rural communities.

The reviewer acknowledged the topic as worth investigating, but viewed the case of Bhutan as unsuited for the task. In Bhutan, unlike in other places, democratization did not arise out of regime disunity, but was accelerated on the initiative of the 4th King (who reigned from 1972 to 2006). A royal decree was issued in 2001, to enact the country's first constitution that would transfer the King's leadership role to the people. The move was in line with the assertion consistently and repeatedly made by the 4th King since the 1970s, about a major pitfall of monarchy; it places much reliance on a single person, who may not always make the right decisions about how best to attain greater peace and prosperity in future.

The Constitution of the Kingdom of Bhutan was subsequently promulgated in 2008, which stipulates that the form of government shall be that of "democratic constitutional monarchy". Among the major changes effected is the introduction of the parliamentary system in which the members of the National Council (NC) and the National Assembly (NA) are elected by universal suffrage, and the Cabinet is formed by the ruling party holding the majority of seats in the NA.

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Before the 2008 political change, the King identified ministerial candidates, who would form the Cabinet upon official approval by the NA. The Ministers would serve the post of the prime minister on a rotational basis. The NA had existed since 1953 and drawn local representatives from all the twenty districts of Bhutan. However, unlike the current NA, one wing of the bicameral legislature that makes plans and laws and discharges oversight functions over the executive branch, the role of the previous NA was largely limited to deliberate national plans and laws put forth by higher authorities (although the local representatives did not simply defer to, but often contested the decisions when they entailed grave implications for their localities). Unlike the present NA/NC members, moreover, the local representatives were not given mandate through ballot, but were selected in a meeting held in their respective localities.

The 2008 political change was to effect liberal-democratic reforms, that is, “the dominant form of political force in the developed world, and increasingly in the developing world” (Heywood, 2012, p.39). Liberal democracy upholds “the twin principles of limited government and popular consent expressed at election time” (Heywood, 2004, p.251). In Bhutan, accordingly, the multi-party system has been adopted for the NA<sup>1</sup>, which prompts different groups of politicians to compete with each other, to frame policies that best respond to the preferences of the general populace. The ruling party is in need of responding to popular pressures owing to the fact that the voters can remove them through the ballot box. For the first time in the history of Bhutan, the public can directly grant or withdraw consent to the government in power, mandating it to exercise its power in line with their demands.

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<sup>1</sup> A multi-party system has not been introduced to the NC or local-level elections, to constrain the proliferation of divisive, partisan politics. The first elections of the NC and the NA were conducted in 2007 and 2008, while the second elections took place in 2013. The Cabinet was formed in 2008 and 2013 respectively to start its five-year tenure as the popularly elected government.

At the same time, Bhutan's "democratic constitutional monarchy" deviates from the orthodoxy of liberal democracy; its monarchy has not receded but has taken on renewed importance, nor has the advent of democracy diminished the role of religion. In the constitution, the King is stipulated to be "the upholder of *Chhoe-sid*", namely the religious (*chhoe*), and political (*sid*) values of peace and prosperity. The King, as guardian of the nation state, seeks to preserve a cohesive society bound by mutual trust and obligation, and to avert divisive politics that would jeopardize social harmony, by positioning himself at the helm of *tsawa sum* (the "three foundations") comprising the nation, the people and the King. The notion of *tsawa sum* is founded on the Buddhist notion of the holy trinity (Buddha, *darma*, and *sangha*), and is a vital condition for the nation state to flourish (Karma Ura, 2004, p.314).

This caused the above reviewer to contend that "whether Bhutan is a democracy is doubtful"; it contradicts two major assumptions of liberal democracy. First, monarchy is averse to democracy, in line with the Aristotelian traditional classification separating rule by a single individual (monarchy) and rule by the many (democracy). Second, the state should avoid according a particular religious persuasion a privileged status, in order to prevent religion from intruding into secular politics.

The monarchy/democracy, and religion/politics dichotomies, allegedly constitutive of "the spirit of democracy in its European and non-European meanings", originate in some historical experiences in Europe giving rise to liberal democracy. In several parts of Europe, the power of sovereign monarchs underpinned by divine authority came to be challenged by the rising middle class, from the seventeenth century onward. This resulted in the emergence of constitutional, representative forms of government, the power of which was to be restricted by constitutional rules defining the relations between rulers and the ruled.

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The notion of democracy should be an essentially contestable concept, and must not accord such a special privilege to the historical unfolding of Europe. If it is to denote the virtue of “government of the people, by the people, and for the people”, different peoples must be allowed to uphold their own models that occur to them most naturally. However, the academic and popular thinking on the subject is currently conditioned by the orthodoxy of liberal democracy, as if it were “the only feasible or meaningful form of democracy” (Heywood, 2004, p. 226).

As a consequence, “the twin principles of limited government and popular consent expressed at election time” are unquestionably assumed to take the form of the rule that keeps the state unaligned with any particular leader or religion, with recourse to the monarchy/democracy and religion/politics dichotomies. Bhutan’s democracy, under which the King and religion continue to play crucial roles, is seen to contravene “the principle of limited government”.

This article is aimed at, while drawing on the case of Bhutan, dissecting how the prevailing wisdom of democracy inadvertently enforces closure to other plausible, non-liberalistic interpretations. If we endeavour to pay discreet attention to the King and Buddhism, both of which carry moral authorities constraining arbitrary use of governmental power, we can ascertain an alternative form of “limited government”, beyond our constricted comprehension of what it amounts to.

While seeking to enhance debates on democracy in this way, this article is also to contribute to a larger project of “Provincializing Europe” to rephrase Dipesh Chakrabarty (2007). Democracy is a key to our pursuit of “Provincializing Europe”; the notion of democracy has been serving since the twentieth century, as the latest rhetoric to place European, ostensibly universalistic values at the pinnacle of “progress” (Wallerstein, 2006, p.27). The above commentary inadvertently

questioning “whether Bhutan is a democracy is doubtful” is a glaring testimony.

This article will start by delving into, in the following section, the wider context in which the circumscribed, liberal-democratic conception has arisen as the rhetoric for ranking various societies in a linear trajectory. It will then explore how best to rectify the universalistic wisdom of democracy, according to which the state should, as a neutral arbiter, avoid according a special status to any particular leader or religion. The case of Bhutan, thriving on the monarchical authority and Buddhism, can bring new cultural sensibilities to bear on debates about democracy. The article concludes by illuminating the potentiality of Bhutan’s democracy to serve as a valuable intellectual resource for enriching the heritage of political philosophy.

## **The Rise of the Constricted Notion of “Democracy”**

### ***From Humanism to Scientific Universalism***

In pursuing the objective to problematize the popular wisdom of democracy, it is imperative to ascertain the Eurocentric understanding of the modern era, as a whole. This will enable us to contextualize the Europe-centred perspective of democracy, and to grasp how it has been fabricated and imposed on divergent historical experiences of different peoples (although it is far from being a linear story of modernization taking over other “primitive” cultures).

According to a Europe-centred version of the world’s history, the modern era started in the sixteenth century, and has largely been a history of the expansion of the Western states and peoples in the world, through military conquest and economic exploitation. This expansion has been legitimized by means of three types of rhetoric championing European, “universal” values (Wallerstein, 2006, p.27), which would bring “backward” societies into the light of “modernity”; the Rest of the world had no choice but to accept Western interventions.

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First, the idea of “natural law and Christianity” was drawn upon in the sixteenth century, when innovations in shipping and navigation technologies enhanced interconnections among distant societies. It was the vision of the moral order asserting that how human societies are ruled must be rooted in the transcendental wisdom given by God; it would bring all humanity the good life on earth.

Second, the rhetoric of “civilizing mission” came to the fore in the nineteenth century, when industrial capitalism and imperial expansion boosted European control over the world. It was the idea assigning missionaries and colonial administrators the role of guiding non-Europeans toward the attainment of “civilization”; uneducated, unlettered, brute “barbarians” were seen to be at lower stages of a linear, evolutionary progression toward “civilization”.

Third, the rhetoric of “democracy” emerged in the twentieth century, as the latest instrument justifying the supremacy of Europe in the world. The liberal-democratic model, upholding “the twin principles of limited government and popular consent expressed at election time”, has come to be, and continues to be mobilized as an objectively verifiable benchmark to measure the extent to which a particular society has attained “progress”.

The rhetoric of democracy arose when “the concept of science that was outside ‘culture’” (Wallerstein, 2006, p.77) was called for, to change the manner in which European universalism was fabricated as all-embracing standards. Earlier “humanistic universalism”, founded on the naturalistic fallacy of the European superiority, came to be replaced by “scientific universalism”, valuing scientific, true/false inquiries as a means of dissecting “objective” laws governing human evolution (Wallerstein, 2006, pp.51-70).

The two earlier modes of moralizing rhetoric had not enabled “barbarians” to catch up with the “civilized”, thereby failing to prove their worth. This had given rise to cultural relativism

over the nineteenth and twentieth centuries, questioning Europe's ostensible supremacy, and casting doubt on the righteousness of hierarchizing a diverse set of human groups in naturalistic manners.

Scientific universalism, in turn, has compartmentalized academic pursuits into two camps, namely, the scientific camp (the search for "truths") and the humanistic camp (the search for "values")<sup>2</sup>; The former includes the tri-modal, nomothetic social science, composed of political science, economics, and sociology; these disciplines are to elucidate "general" laws concerning human societies, through empirical research of the "advanced" European present that is seen to define yardstick that the Rest of the world should aspire to.<sup>3</sup>

The birth of the scientific camp and the concomitant rise of the tri-modal social science have provided a fertile ground for the rhetoric of liberal democracy to establish dominance in today's academic as well as popular thinking on politics. First, the tripartite delineation of human activity into the political, the economic, and the socio-cultural fields resonates with, and helps to promote the liberal ideology that upholds the primacy of the individual. The liberal creed calls for a society in which individuals enjoy autonomy from the state, and freely pursue their aspirations in the "economic" and the "social" arenas. In the "political" realm, the state should

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<sup>2</sup> The humanistic camp includes history, anthropology, and Oriental studies, to describe the uniqueness of "particularistic" social phenomena, such as those observed in the European past, and in non-European society, past and present.

<sup>3</sup> The three nomothetic sciences came into being, not only as the empirical justification of European universalism, but also out of the need, within Europe, to arrive at theories and models to analyse and tame social changes (Wallerstein, 2001). In nineteenth-century Europe, there existed growing concern among the elite, about the worsening socio-economic conditions generated by the industrial growth, as well as about the concomitant rise in anti-capitalist movements (the emergence of Marxism pointing to the inevitability of socialist revolution, and the growth of conservatism calling for the need to put brakes on precipitate social change).

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refrain from encroaching on religious or other “private” affairs (the religion/politics dichotomy), and operate in an open and competitive manner. Moreover, political power must not be left in the hands of a particular ruling elite (the monarchy/democracy dichotomy).

Second, normative inquiries into what democracy “should” be have given way to descriptive examinations of what “is” at work in a given liberal democracy, as if liberal democracy were “the only feasible or meaningful form”. This is because the truth/value epistemological divide, opened up in tandem with the scientific/humanistic bifurcation, has relegated political philosophy to a “second-order discipline” exploring the meanings of politics, law, and society (Heywood, 2001, p.10). Political science has instead ascended to the status of a “first-order discipline” focusing on disclosing “truths” through “value-free” inquiries into what institutions and conditions are required of liberal democracy. In the name of analysing and explaining politics in a rigorous, neutral way, value judgments about democracy have receded, in favour of empiricism biased toward “facts” and “evidence”.

Thirdly, the flourishing of empirical studies of liberal democracy has been accompanied by the emergence of what F.A. Hayek (1982) calls “constructivist rationalism”, according to which political ideals are to be achieved through consciously induced changes. The “general” laws of liberal democracy are to be discovered through empirical studies of the “advanced” European present, and are to be deliberately emulated throughout the world. To paraphrase Michael Oakeshott (1991, p.45, parentheses added), “making (new) arrangements” in line with “the twin liberal-democratic principles” has become the benchmark of democracy, while ruling out an alternative route to democracy of “attending to the (vernacular) arrangements” that are anchored in social and religious traditions in different areas.

### **“The Cave” Unduly Privileging Political Science**

The present-day supremacy of liberal democracy has not spontaneously arisen from innate human desires to become free, autonomous individuals. On the contrary, it has historically come about under the sway of scientific universalism and its derivative, namely, “the concept of political science that is outside ‘culture’”; “universal” laws governing politics were identified through empirical studies of Europe’s *de facto* “local” realities, leading to the prevalence of the Eurocentric pseudo-scientific determinism of dissociating monarchy and religion from democracy.

Before proceeding to analyse how Bhutan’s democracy, according importance to the monarchy and Buddhism, can rectify the constricted conception of democracy, I will further delve into the context in which scientific universalism has persisted till today; the majority of political analysts continue to be bogged down by it, such as the reviewer quoted at the beginning of this article, uttering “whether Bhutan is a democracy is doubtful”. For this purpose, it is useful to turn to Bruno Latour (2004), who analogizes our conventional thinking on politics to “the Cave”.

According to Latour, the Cave consists of two chambers, namely one of human subjects, and the other of nonhuman objects (such as political concepts, models, and institutions<sup>4</sup>). The imagery of the Cave, composed of the former chamber laden with conflicting, fallible human “values”, and the latter governed by objectively verifiable “truths”, works to authorize scientists to move back and forth between the two chambers; scientists are qualified to conduct rigorous, empirical

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<sup>4</sup>Latour focuses on ecological politics in his book, and thereby construes that the second chamber is composed of objects examined by natural scientists, such as astronomers, biologists, chemists, and physicists. This article directs Latour’s argument at studies of democracy, and thus regards the second chamber to consist of nonhuman objects, including political institutions, concepts and models, which human beings draw on to engage in democratic politics.

research into the laws governing nonhuman objects. Scientists are thereby in a position to “tell the truth without being challenged, put an end to the interminable arguments through an incontestable form of authority”, and “bring order to the assembly of humans by keeping its members quiet” (Latour, 2004, p.14).

We can draw on the Cave framework, and illustrate how it stifles equal and open deliberations about democracy, and constricts academic and popular thinking on the subject. It is those political scientists immersed in the orthodoxy of liberal democracy, who promulgate such popular wisdom as the monarchy/democracy and religion/politics dichotomies.

To rectify this situation, Latour proposes to abandon the truth/value divide, and to open the floor to other scholars or lay persons who have thus far been restrained from questioning these basic premises. This is to ensure a due process in which a range of “propositions” about democracy are duly noted and examined. A “proposition” is not a “statement” that is judged to be true or false by scientists (in terms of “rightness”). It is assessed whether they are articulated well or badly (from the viewpoint of “goodness”). This strategy potentially serves to reverse the overall trend of Western political thought (Murdoch 1970), in which the idea of “goodness” has historically been superseded by the idea of “rightness” in the heyday of scientific universalism.

This renewed arrangement builds upon a knowledge movement called “cultural studies” that has arisen in the last third of the twentieth century; according to it, what are regarded as “truths” are implicated in “values” that are preponderant in society. The epistemological truth/value bifurcation that underlies scientific universalism diverts attention away from such truth-value nexus, and is detrimental to intellectual pursuits, in that they become liable to succumb to dominant groups.

This pitfall inherent in the truth/value divide is well illustrated by the malaise of today's orthodox debates on democracy; liberal democracy is privileged even though it often creates a gulf between government and its subjects, irrespective of its alleged promise to make possible a high degree of popular responsiveness. Liberal democracy tends to cause political power to concentrate in the hands of small groups with money, power, and position. As a result, its *de jure* virtue of individual freedom and autonomy often works to mask the *de facto* dominance by the privileged few, while reducing the majority of citizens to passive roles. The sway of empirical studies into the actualities of liberal democracy deters value judgments, and deflects criticism against its propensities to spread unbridled individualism and destabilize social harmony.

This corroborates a warning given by Latour; that is, “[t]he more one distinguishes between facts and values, the more one ends up with the bad *common world*” (Latour, 2004, p.99). Debates about democracy, if they are to result in a better *common world*, should move between descriptive analyses of what “is” at work within a given (liberal-) democratic system (assuming that the system is “truly” democratic), and normative inquiries into what a democracy “should” be (exploring a “valuable” alternative to the system). In this way, we could ascertain that liberal democracy is a cultural artefact. The truth-value nexus causing liberal democracy to hold sway would be untangled, while its particularistic, non-absolute nature would come to light.

This would lead political discussions to go beyond the routine comprehension of what is “democracy”, to embrace other “illiberal” stories that would otherwise be filtered out of the deliberative arena. The notion of liberal democracy would no longer be presented as the optimal, unobjectionable option; its implicit values would instead be exposed and examined vis-à-vis other plausible perspectives, thereby resulting a more open deliberations.

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This does not mean, at the same time, that we should lapse into relativism that sees any truth claim to be equally valid. Certain propositions are more legitimate than others. Value judgments are called for, in order to weigh various propositions against each other. The mainstay of the renewed strategy is to vivify the idea of “goodness”, which has been swamped by the idea of “rightness” in the history of Western political thought mired by the pseudo-scientific determinism.

Bhutan’s democracy can potentially serve, not only as a promising Proposition, but as a guidepost in arranging in rank order different propositions about democracy. The case of Bhutan, to paraphrase Michael Oakeshott quoted in the preceding section, centres round “attending to the (vernacular) arrangements” that have historically bound the people by mutual trust and obligation, rather than “making (new, allegedly ‘universal’) arrangements”. It thus defies the Cave framework that unduly privileges “all-embracing” laws of liberal democracy.

### **Bhutan’s “Home-Grown Natural Democracy”**

#### ***The Proposition: “Bhutan is a Democracy”***

How can we translate the case of Bhutan into a Proposition, which is unforeseen in the usual stories told about democracy, and thus triggers a rethink among political analysts? In this respect, it is crucial not to condense Bhutan’s democracy, in binary opposition to the dominant notion of liberal democracy; the two are normally segregated to a “young, dubious democracy” and the “global” agenda taking over “local” societies (including Bhutan). It is imperative, instead, to shed light on a similar move towards “direct-access society” that cuts across the two.

We would otherwise lapse into the very binary divide underlying the Eurocentric understanding of the modern era, namely, the West and the Rest. As stated above, the dichotomy has formed the backbone of scientific universalism that privileges the “advanced” European present embodying

“universal” laws, which the Rest of world should aspire to. We should liberate ourselves from the shackles of this dichotomy, if we are to refurbish the Cave, dominated by political scientists, leaning toward the “universal” notion of liberal democracy.

The conception of “direct-access society” is put forth by Charles Taylor, who points out that the process of modernization has brought about a new moral order of society in the West, in which “[e]ach of us is equidistant from the center; we are immediate to the whole” (2004, p.158). Modern citizens, whether they reside inside or outside the West, become less dependent on intermediaries, such as lords, traders, or churches, and involve themselves more directly in the running of politics, with better ideas about the rest of their respective societies.

What is implied in the idea of “direct-access society”, in the context of the West, according to Charles Taylor, in that it is “unrelated to any ‘higher points’..., such as kings or priests” (Taylor, 2004, p.157), an “all-embracing” law of human evolution. This is where the case of Bhutan can offer an alternative, in that the move towards a “direct-access society” has not diminished but, on the contrary, has been propelled by the role of the monarchy or religion. This contradicts the general historical experience of Europe from the seventeenth century onward, where “direct-access society” came to the fore, in tandem with the decline of sovereign monarchs underpinned by divine authority.

The case of Bhutan can therefore give the *de facto* multiplicity of modernization its rightful place, while doing away with the linear view of modernization that pits the West with the Rest and idealizes the mainstream model of liberal democracy that has arisen from the former’s history. As pointed out by Charles Taylor, a close examination reveals, even within the West, diverse trajectories of the march towards “direct-access

society”<sup>5</sup>. “[I]t should be all the more obvious how much greater are the differences among the major civilizations” (Taylor, 2004, p.196). Bhutan is part of the Tantric Buddhism civilization.

Bhutan’s democracy is aimed at forging a “direct-access society” by “attending to the (vernacular) arrangements” that rests on the monarchical authority and Buddhism; both of them represent vernacular democratic values in Bhutan. The case of Bhutan provides a contrast to other usual cases that focus on “making (new) arrangements”, and on relinquishing their respective tradition and history. It does not comply with the monarchy/democracy, and religion/politics dichotomies, which are normally regarded as the benchmark of democracy elsewhere.

This has caused the “home-grown natural democracy” (Dessallien, 2005, p.71) to thrive in the country, an illustrative example of Michael Oakeshott’s maxim on the need to escape the most insidious “misunderstanding in which institutions and procedures appear as pieces of machinery ... instead of as manners of behaviours which are meaningless when separated from their context” (Oakeshott, 1991, 63). In Bhutan, the move toward a “direct-access society” has been facilitated by its “local” culture that diverges, but is not entirely distinct from the “global”; although democracy has its roots in the West, democratic values are not alien to, but have been embedded in Bhutanese society. Chief Justice Sonam Tobgye (2012, parentheses added), who served as the Chair of the

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<sup>5</sup> This is elucidated by Taylor’s comparative analysis of the eighteenth-century American and French Revolutions (Taylor, 2004, Chapter 8). The former proceeded with a generally agreed-upon goal of reclaiming the traditional “rights of Englishman” in the new colony. The latter, on the other hand, took place without an agreed-upon meaning of the revolution, except to destroy the *ancient regime*; the attempt was therefore made to recast politics in line with the abstract notions of liberty, equality and fraternity, instead of restoring a lost moral order.

Constitution Drafting Committee<sup>6</sup>, correspondingly points out that “[o]urs was not a mandate to change the world but to assimilate (liberal-democratic institutional) change into an existing (social) system”.

### **Monarchy**

In Buddhism, monarchy is regarded as a proper mode of political organization (Sonam Kinga, 2009, pp.17-19). A king is expected to promulgate morality in society, as both a secular and a spiritual leader, while the people, in return, forego their parochial interests, to seek the good of a common humanity. This conception of kingship, from a liberal-democratic viewpoint, is typically equated with paternalism preventing people from being independent and self-reliant. Buddhism, on the other hand, regards it as enhancing the prospects of individuals’ making moral choices. This is exemplified by Bhutan’s Constitution, in which the King is positioned as “the upholder of *Chhoe-sid*” (Article 2(2)), or the religious (*chhoe*), and political (*sid*) values of peace and prosperity.

Accordingly, the King of Bhutan has historically sought to rest his authority in his charitable, moral actions, by serving as an agent of building a “direct-access society” for the benefit of the general populace. The start of the hereditary monarchy in 1907 marked an end to incessant feuds over succession and the civil wars that had long afflicted the populace. It has laid the foundation for the country’s peace and social order, thus enabling the transition to a “direct-access society” to take place in Bhutan. Moreover, the serf system was subsequently abolished, to allow the vast majority of the people to own agricultural land.

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<sup>6</sup> The Constitution Drafting Committee was formed in November 2001 at the authorization of the King. It consisted of thirty-nine representatives from different sections of the society (the central monk body, the twenty districts, the judiciary, and government administration), with Chief Justice Sonam Tobgye as the chairperson.

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The 3rd King, “the Father of Modern Bhutan”, who ascended to throne in 1952, initiated a series of political reforms to delegate power to the people’s representatives, to start effecting a gradual, steady transition to a “direct-access society”. The National Assembly was created in 1953, with local representatives drawn from all the twenty districts, who were selected in a meeting held in their respect localities. In 1968, the Cabinet system started in order for the King to share his executive powers with the Ministers.

The 4th King, whose reign started in 1972, followed in his father’s footsteps, by forming district- and county-level assemblies in 1981 and 1991 respectively, to discuss issues to be raised at the central level, and to bring problems of the grassroots level, to the notice of the centre. In 1998, the King relinquished his chair (equivalent to a prime minister) in the Cabinet, created the post of the Prime Minister to be rotated among the Cabinet Ministers, and entrusted the ministers with full executive roles. The series of political reforms culminated when the people took an active part in the first elections of the NC and the NA in 2007 and 2008 respectively.

“The notion of the King sacrificing his power to empower the people (through the enactment of the Constitution in 2008) imbued Bhutan’s democratic transition with a strong moral dimension” (Sonam Kinga, 2010, p.169, parenthesis added). The King had not only voluntarily issued a royal decree, in 2001, to enact the country’s first constitution, but also ensured public involvement in its preparation; a copy of a draft constitution was distributed to each household, and public consultations were conducted in all the twenty district capitals. In this way, efforts were made to help the general public to understand the significance of the political change, and to accord them opportunities to comment on the draft constitution.

At the same time, the Constitution has not diminished the role of the King; “[b]y giving away the King’s right to rule, the monarchy’s ‘moral right to reign’ has been reinforced” (Sonam

Kinga, 2010, p.169). The King continues to visit the countryside regularly, and maintains his prerogative to issue a directive regarding the government's conduct, when necessary.<sup>7</sup> As "the Head of State and the symbol of unity" (Article 2(1)), the King ensures that the needs and wants of disadvantaged groups are addressed, and that crises are mediated when they arise from pluralistic politics.<sup>8</sup>

This does not mean, however, we should abstain from incorporating Bhutan into the rank of "democracies", just as the reviewer quoted at the start of this article, who reproves the King for remaining "the ultimate authority". On the contrary, one of the major changes infused into the country's polity is the idea of state and government as separate entities (Sonam Kinga, 2010, p.169), that is, a familiar step taken by a country that goes through democratisation. This has proceeded, at the same time, in such a manner as to uniquely "attend to the (vernacular) arrangement"; the King has stepped aside to allow the elective political executive to run *zhung* (the government), while remaining the ultimate

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<sup>7</sup> For example, the King issued a directive in June 2012, when the National Assembly was deliberating a bill that would allow the government to retain larger leverage to distribute governmental land for resettlement purposes. Drawing on growing public concern about the prospects that it might accelerate land transfer to individual citizens, the King sent out a message to the effect that governmental land should be preserved in the interest of future generations. This led the government to defer the deliberation of the bill, until after the next National Assembly election scheduled for 2013.

<sup>8</sup> For example, when the new Prime Minister and ten Ministers were formally appointed in July 2013, the King delivered a speech, and urged politicians to forgo party rivalries that had beset 2013 election in which both the incumbent party and the outgoing ruling party had asserted their supremacy over the other party. "Politicization of issues, disagreements and disturbances during elections, the King said, was natural in a democratic process, which existed in the 2008 election as it did in 2013. Notwithstanding all that, what was most important eventually, His Majesty said, was for the people to come together and live like members of a family." (*Kuensel* newspaper, July 29, 2013)

authority of *gyalkam* (the state, literally meaning “the realm of the King”), to use the terms adopted in the Constitution.

This arrangement offers a credible alternative to the liberal-democratic orthodoxy, in that the King has assumed greater importance as the “safety net” against divisive forces that potentially arise with the advent of the liberal-democratic reform (Kinley Dorji, 2010, p.148). The state is normally positioned as a neutral arbiter among competing interests in society. This neutrality principle has tended, in the absence of a focal point that nurtures an ethos of harmony and tolerance, to cause political power to concentrate in the hands of the privileged few, thereby creating a gulf between government and its subjects. The notion of *gyalkam* shows a way to fill such a void intrinsic to liberal democracy which tends to fail to foster associative ties that shape desires, values, and purposes among individuals.

Contrary to the dominant image of monarchy as a high-handed ruler of its passive subjects, Bhutan’s polity had always been a “monarchical democracy” (Gupta, 1999, p.50). The case of Bhutan provides a “humble insight that there is a lot that we don’t understand, that we lack even the adequate language to describe these differences”, to paraphrase Charles Taylor (2004, p.196). We need to become more sensitive to the multiplicity of modernity by liberating ourselves from the shackles of the prevailing view that monarchy is averse to modernity.

### **Buddhism**

The Buddhist notion of kingship, described in the preceding section, carries forth the long-established mainstay of the Bhutanese polity, namely, *chhoe-sid-nyei* or a dual system of religion and politics. It came into being when Zhabdrung Ngawang Namgyal, a saint from Tibet, set to unify the Bhutanese state in the seventeenth century. Zhabdrung instituted a diarchal system of government, in which the secular leader and the spiritual authority co-existed under Zhabdrung’s rule. Such a dual system has remained as a

basis of the Bhutanese polity, as it came to take the form of the hereditary monarchy in 1907, which eventually evolved into the “democratic constitutional monarchy” in 2008 (Sonam Kinga, 2009, p.11).

Accordingly, the Constitution stipulates Buddhism as the country’s backbone; it includes provisions to promote a “compassionate society rooted in the Buddhist ethos” (Article 9(20)), and to protect the country’s spiritual heritage (Article 3). “There is no mention of religion ... in any constitution of other countries except in the Constitution of Bhutan” which puts priority in maintaining religious values as “moral fibre”, as stated by Chief Justice Sonam Tobgye (2012).

These Constitutional clauses would conventionally be seen to stifle the move towards a “direct-access society”, just as the Constitutional reference to the Bhutanese state as *gyalkam* (“the realm of the King”); they risk leaving the definition of a “good society” in the hands of the few in power, who may articulate particularistic interests. There should instead be a private realm beyond the reach of the state, where individuals are given liberty to pursue their own happiness and fulfilment. Liberal democrats would propose to prevent the state from exercising such “social control” from above, and to build “secular” regimes that avoid privileging a particular religion with recourse to the separation of church and state.

This “mantra-like neutrality formula” (Taylor, 2011, p.40) is problematic, given that it often gets tainted by religious and cultural outlooks dominant in society. It is implausible to arrive at one master formula that enables us to implement the separation of church and state without excluding particular ways of life. “Now the notion of state neutrality ... has trouble making headway among ‘secular’ people in the West, who remain oddly fixated on (minority) religion as something strange” (Taylor, 2011, p.51, parenthesis added).<sup>9</sup>

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<sup>9</sup> For instance, there have been heated debates in the West concerning whether Muslim women can wear the headscarf in

## *A Proposition “Bhutan is a Democracy”*

There should therefore be a deeper normative basis if democracy is to function, instead of merely resorting to slogans, such as “freedom of conscience” and “equality of respect”. As pointed out by Michael Walzer, such “neutrality formula” can be a “self-subverting doctrine” in that they do not by themselves nurture an ethos of harmony and tolerance, but often counteract associative bonds among the general public (Walzer, 2004, pp.153-154).

This leads Charles Taylor to argue “[w]hat deserves to be called secularist regimes in contemporary democracy have to be conceived not primarily as bulwarks against religion but as good faith attempts to secure three basic goals” of liberty, equality, and fraternity (Taylor, 2011, p.56); religion can form a basis for building a “direct-access society”. In this respect, Taylor goes on to assert that there can be a “civil religion” in certain cases, which serves as common ethico-political principles of politics.

In Bhutan, Buddhism is the “civil religion”. “For most Bhutanese, Buddhism permeates all facets of their lives. ... It informs their worldview, lifestyle, social behavior, economic practices and political thinking” (Karma Phuntsho, 2013. p.42). It has historically assigned individuals a sense of the common good, founded on its teachings upholding *liberty*, *equality*, and *fraternity*.

One central tenet of Mahayana Buddhism practiced in Bhutan is that everyone is potentially capable of self-development and edification. Buddhism is compatible with democracy, in that both are founded on a common premise of *equality*, and emphasize the personal potential and worth of

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public. They have led, in several Western “democracies”, to its banning or permits given to public offices to interdict it. These moves, implicitly denying religious minorities an equal status with the mainstream population, emanate from the ill-considered presumptions that Muslim women are forced to accept the dress code by their families and male peers, and that the wearing of the headscarf is tantamount to giving an “ostentatious” religious sign.

each human being. “The Buddha proclaimed that each individual is a master of his or her own destiny, highlighting the capacity that person has to attain enlightenment” (Dalai Lama, 1999; cited in TashiWangchuk, 2004, p.841).

At the same time, a key factor in the process of self-development is the liberation from one’s predisposition to equate *liberty* with the removal of restraints on each individual’s volition to exercise sovereign control over his/her own life. Buddhism regards such restraints as the fundamental condition of human existence; one cannot sustain himself/herself without immersing himself/herself in a network of interrelationships with others, human and non-human. According to Buddhism, liberty is attained when one liberates himself/herself from the false belief in the possibility of “an independent self”, and awakens himself/herself to the interdependence of various life forms, and arrive at a proper understanding of “a relational self”.

Moreover, not only liberty and equality, but *fraternity* is essential to Buddhism. As long as one practices a religion that seeks similar spiritual development, that is the goal of every religious path, one is said to practice the dharma. “[O]ne may practice the dharma by following the teachings and practices of non-Buddhist traditions such as Christianity, Islam, Judaism, or Hinduism” (Dalai Lama, 1980; cited in Powers, 2007, p.26). As aptly hinted at by the title of a conference held in May 2012 in Bhutan, *Buddhism Without Borders*, and as pointed out by one of the speakers, Khenpo Phuntshok Tashi (2013, p.117), “Buddhism has no clear boundary, or border, as a religion that needs to be defined, protected or expanded”. It neither propagates expansionism nor promotes conversions.

Buddhism thus teaches us not to intrude on others, but to overcome our enemies within, that is, the delusive albeit captivating belief in “an independent self”. The resultant view of “a relational self” is to set the tone of Bhutan’s democracy; political leaders seek to attain an altruistic determination to

pursue the well-being of all, instead of being motivated by such negative goals as to impress others, or to exercise influence over others. “The starting point for social change in a democratic system cannot rest on the demands we place on governing others, but the demands we place on defining and governing ourselves” (Halkins, 2013, p.33), in order that we gain wisdom and compassion for the benefit of others.

As Tenzin Rigden (2013), the Press Secretary at the Office of the Prime Minister during the first democratically elected government (2008-2013), reflects on the country’s political leaders in the past and present, to state that “as staunch Buddhists, the rulers were guided by the Buddhist tenets of humility, wisdom and compassion in their dealings with the subjects” and that “all probable excesses that could have otherwise arisen were thus prevented”. To carry forth this historical role of Buddhism, the National Assembly (NA)/National Council (NC) halls are decorated with altars and *thangkhas* (Buddhist paintings and drawings), while solemn ceremonies invoking divine blessings take place at the beginning of every session. This is in line with the Tantric Buddhism tradition; one meditates to gain insight into the nature of reality, and surrounds oneself with symbols of religious attainments, to pacify the mind and cultivate feelings of compassion for others.

Moreover, as stated above, Buddhist teachings are woven into the fabric of the people’s daily lives in Bhutan. Thriving on these vernacular forms of *liberty*, *equality*, and *fraternity*, that inculcate a sense of associative bonds, grassroots self-government has customarily been in practice in villages (Tashi Wangchuk, 2004, pp.840-845); decisions affecting localities are taken in village meetings, attended by at least one representative from every household. While this type of decision-making is usually seen elsewhere to risk playing into the hands of powerful actors, in Bhutan, all are given an equal say, debate various opinions, and work out mutual differences to arrive at a conclusion.

The tradition of grassroots self-government has long been drawn on in Bhutan's politics. For instance, the members of the NA, before it was reconstituted as a house of the bicameral legislature in 2008, used to be selected in meetings held in their respective villages or towns. Any candidate who stands for the NC, established in 2008, needs to secure approval in a gathering held in his or her locality. Moreover, any major governmental decision or programme affecting a particular area, just as in the past, continues to be deliberated in a village or town meeting, to accommodate the aspirations of the people.

In Bhutan, just as the monarchy, Buddhism serves to prevent its liberal-democratic institutions from creating a gulf between government and its subjects. It likewise deters the prevalence of unbridled individualism, and instead nurtures associative ties among the general public. It has thus provided a fertile ground for the country's move to nurture "direct-access society" in which "everyone is equidistant from the center and is immediate to the whole".

### **Like-minded Political Philosophers in the West**

The Proposition about the Bhutanese way of weaving monarchy and religion into democracy can help to bring new cultural sensibilities to bear on today's mainstream academic and popular thinking on the subject; the widely held view on democracy, which emanates from the overall historical experience of Europe, leads us to cast its "local" values as "universal" standards to be emulated in the Rest. Bhutan's democracy that "attends to the (vernacular) arrangements" could play a central role in exposing the fallacy of the prevailing wisdom that ranks various societies in a linear trajectory and thus prompts the Rest to "make (new) arrangements".

At the same time, this does not mean that we need to look to non-European areas in our endeavours of "provincializing Europe". As pointed out by Charles Taylor (2004, p.183), central ideas that legitimize the European supremacy,

including the notion of liberal democracy, are not merely ideological, but have been constitutive of counter knowledge within the West. Various political philosophers have consistently raised critique against the liability of liberal democracy to degenerate into mob rule; although free citizens are given rights to grant or withdraw consent to government, supposedly mandating it to exercise its power in line with their demands, liberal democracy tends to breed unrestrained individualism, at the cost of the social fabric.

This is because liberal democracy is tantamount to "the utopian idea of total depoliticization" (Schmitt 1996, p.54), according to Carl Schmitt who was critical of the Weimer Republic (1919-33) remodelling of Germany on liberal-democratic lines. Liberal democracy is founded on the fallacy that a rational compromise can be reached when citizens and their representatives engage in deliberations with a disposition to listen to others and treat others with respect. However, at the heart of real politik is "the political" (Schmitt, 1996, p.40), which denotes the centrality of the friend/enemy distinction; it is implausible to reduce politics to peaceful conciliation of plurality and difference of its members; a political community is bound to be formed by demarcating the outside from the inside, and also to discipline those insiders who behave in an anti-social fashion.

There has been a recent rebirth of academic interest in Schmitt's assertion to restore "the political", that is, to render politics to demarcate "those who are with you and those against whom you struggle" (Strong, 1996, p. xv). It is imperative, with recourse to the friend/enemy distinction, to counter the preponderance of liberal democracy that is liable to bring about "the abandonment of the state to private interests" (Strong, 1996, p. xv). The friend/enemy distinction calls for value judgments as to what a democracy "should" be, while dispensing with pseudo-scientific determinism of what "is" democracy. The latter prevails in today's political analysis in the heyday of scientific universalism.

How could the friend/enemy distinction be made, without lapsing into a paternalistic society in which the definition of a “good society” is controlled by elite decision-makers? In this respect, it is useful to turn to F.A. Hayek (1982), who problematizes constructivist rationalism regarding all social institutions as being amenable to deliberate design. Constructivist rationalism came to hold sway, as explained above, with the advent of scientific universalism and the attendant flourishing of political science focusing on empirical studies of “universal” laws of democracy to be applied to all humanity.<sup>10</sup>

On the other hand, political philosophy has been relegated to a “second-order discipline” engaging in normative inquiries into political ideals. Consequently, “the very sense in which many of the key words describing political ideals are used has so changed meaning that one must today hesitate to use even words like ‘liberty’, ‘justice’, ‘democracy’ or ‘law’, because they no longer convey the meaning they once did” (Hayek, 1982, p.469).

In this respect, “the worst sufferer in this process of the emptying of the meaning of words has in recent times been the word ‘democracy’ itself” (Hayek, 1982, p.471); the term has recently been taken more as a procedural matter of forging equilibrium among free individuals, than as a substantial system in which citizens mandate government to exercise its power in line with their aspirations (Heywood, 2004, pp.42-43). This has added to the innate liability of

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<sup>10</sup> Constructivist rationalism also came into being out of the need that had arisen within Europe in the sixteenth and seventeenth centuries, to construct a peaceful, just world after the breakout of religious wars. “Following the hopeless theological disputes and struggles ..., Europeans sought to construct a neutral domain, in which there would be no conflict and they could reach common agreement through the debates and exchanges of opinion” (Schmit, 1996, p.89). The conception of constructivist rationalism, asserting the plausibility of devising political institutions at will, was to set up “a neutral domain” for peace-building.

liberal democracy to spawn unrestrained individualism and to cause political power to concentrate in the hands of the privileged few. As a result, in many of “advanced” liberal democracies, the word “democracy” has become even synonymous with authoritarianism or totalitarianism (Wolin, 2004).

Hayek proposes to counter “the emptying of the meaning” of democracy, by promulgating an alternative, more spontaneous system of the separation of power, under which every act of government is subjected to “rules of just conduct” thriving on customs, habits, or practices, or time-honoured, common conceptions of what is just. This unconventional notion of the separation of power is intended to allow long-standing patterns of social interactions, or what people think is reasonable and acceptable, to serve as a firm foundation for the running of government.<sup>11</sup>

In this way, those in power would be better restrained from insulating themselves from popular pressure and acting in their own interests, on the pretext that they have been given mandates through the ballot. Politicians would otherwise remain liable to canvass their constituencies for votes at will,

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<sup>11</sup> Hayek’s approach holds a pitfall in its implicit assumption that any unplanned social order essentially prohibits unbridled individualism. As pointed out by John Gray (1989, pp.89-102), such an order does not necessarily exist in every society. It is therefore imperative to specify the types of justice, rights, or liberties are required of a society qualified as being endowed with “rules of just conduct”. However, Hayek fails to put forth “a substantive view of justice and rights which his conflation of liberty with the rule of law disqualifies him from advancing”(Gray, 1989, p.97). In Bhutan, the notion of *tsawa sum*, referred to at the beginning of this article, has served as a foundation of such “rules of just conduct”; according to it, the nation, the people or the King must seek the affection and cooperation of the other entities in that neither can fulfil its, their, or his aspirations without depending on the others. This then causes the democratic ethos of harmony and tolerance to spread to every realm of society, while the government becomes as an entity subordinated to society.

by returning special benefits to particular groups with money, power, and influence, even after acquiring the right to rule through competitive elections.

A key device to bring the renewed notion of separation of power into effect will be constitutions. For this purpose, constitutions must be reinterpreted as “a superstructure erected to secure the maintenance of the law (rules of just conduct), rather than, as they have usually been represented, as the source of all other law” (Hayek, 1982, p.127, parenthesis added); they should be positioned, not as the supreme law standing above statute laws enacted by the legislature, but as vernacular rules ensuring that governments remain checked by “rules of just conduct”, and thus operate in a context of established rules and rules and practices existent in society.

“Very few countries in the world are in the fortunate position of possessing a strong constitutional tradition” (Hayek, 1982, p.443). Bhutan is among the “very few” in that “[r]eligion and culture play a vital role” in its Constitution, as stated by Chief Justice Sonam Tobgye (2012). Its monarchy and Buddhism constitute “universal rules of just conduct”; the Constitution stipulates that the King be “the upholder of *Chhoe-sid*”, and aspires to shape a “compassionate society rooted in the Buddhist ethos”.

Bhutan can thus serve as a source of inspiration for our endeavour to overcome the predicament of today’s democracy, which is liable to lapse into a form of mob rule. The Proposition “Bhutan is a democracy”, thriving on “rules of just conduct” that are founded on the monarchical authority and Buddhism, can illuminate how the popular wisdom of democracy is a cultural artefact. By divulging the constricted nature the monarchy/democracy, and religion/politics dichotomies permeating ongoing political analysis, the case of Bhutan can facilitate truly open, thorough deliberations. It could, moreover, propel a move to ameliorate the wider contexts, in which scientific universalism and the Cave

structure have brought about the circumscribed notion of liberal democracy, ranking various societies on a linear scale of “progress” with pseudo-scientific determinism.

### **Towards Open Deliberations about “Democracy”**

One distinct feature of the overall historical trend of Western political thought is that the idea of “goodness” has been superseded by the idea of “rightness” (Murdoch, 1970). “There is a risk that, in the pursuit of equality, good things which there is difficulty in distributing evenly may not be admitted to be good”, as pointed out by Bertrand Russell (1949, p.51), an influential political philosopher in the West in the early twentieth century. Russell thus warns of the risk of various abstract, high-sounding systems of thoughts, including that of liberal democracy, lapsing into dogmatic creeds that provide ambitious, over-optimistic pictures of what works and how, along the lines of constructive rationalism.

Those “good things which there is difficulty in distributing evenly” include traditional values that are often tied up with hereditary, hierarchical systems of authority and privilege; they can be drawn on as the ethico-political principles for a healthy and smooth functioning of democracy (“goodness”). It is not only Russell but numerous other political philosophers in the West, such as Carl Schmitt and F.A. Hayek, taken up in the preceding section, who have defended the idea of “goodness” against the onslaught of constructive rationalism privileging the idea of “rightness”.

This carries two implications for those of us studying Bhutan’s democracy, or those seeking to ameliorate the popular, circumscribed notion of democracy. First, we can gain inspirations from the accumulated wisdom of Western political philosophy, when seeking to allay doubts (such as “whether Bhutan is a democracy is doubtful”) held by political analysts bogged down by the constricted view of democracy. Some of the central concepts of political philosophy can help to illuminate a way to rectify our orthodox understanding of current political experience.

For example, John Dunn's book entitled *The History of Political Theory* (1996), revives some master works of John Locke (1632-1704) and Thomas Hobbes (1588-1679)<sup>12</sup>. Locke and Hobbes upheld religious and political obligation respectively, as the foundation of associative bonds in society. The notions of religious and political obligation run parallel to, and shed light on the strengths of Bhutan's "natural democracy" founded on the monarchical authority and Buddhism. In this way, key figures in Western political philosophy can be drawn on, to counter the tendency of today's democracy to lapse into a form of mob rule that causes "the abandonment of the state to private interests".

Second, at the same time, Bhutan's "natural democracy" can bring new cultural sensibilities to bear upon the heritage of Western political philosophy. As admitted by Dunn (1996, p.14), "we are far from enjoying such a cosmopolitan vision" as to "allot no arbitrary and inadvertent privilege to the experience of the west". This is in line with the need of a larger project of "Provincializing Europe", in order not to rank human societies in a linear trajectory placing European historical experiences at the pinnacle of "progress".

Accordingly, while the Hobbesian and Lockean notions of religious and political obligation, shares an affinity with

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<sup>12</sup> Locke argued for the primacy of people's freedom to opt for their own religious needs and duties, over their terrestrial rights to freedom of thought and expression (Chapter 6). "It is to God that human beings owe their primary obedience, and only secondarily and derivatively to the laws of the political community to which they happen at the time to belong" (p.105). It is this sense of religious obligation, not secular responsibility, that nurtures a cohesive society bound by mutual toleration. Hobbes cautioned that revolt against political authority would cause the instability and the collapse of the social order (Chapter 4). This Hobbesian notion of political obligation is marginalized in today's political analysis that centres round individual autonomy and choice. Political analysts should equally respect individuals' obligation to obey a benign political authority, an intrinsic feature of the social stability in many places of the globe.

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Bhutan’s “natural democracy”, they are founded on what Marshal Sahlins (2008) terms “the Western illusion of human nature”; human beings are egoistic, independent, self-reliant, and are prone to place their own interests before those of fellow human beings. This atomistic view of human nature, emanating from Europe’s grim experience of sixteenth- and seventeenth-century religious warfare and persecution, has historically been sustained in Western political thought, including its Hobbesian and Lockean schools of thought.

The case of Bhutan can potentially help political philosophers to become sensitized to an alternative to the one-dimensional caricature of human’s innate wickedness. Underlying the notion of *tsawa sum* (“three foundations”), referred to at the beginning of this article, is the notion of human nature as being gregarious, and ready to concern oneself with the good of other beings. The egoistical urges of human beings do not necessarily prevail over their sociability, in the context of Bhutan. “[T]here is no such thing as human nature independent of culture” (Sahlins, 1996, p.110). Human beings do not share a universal character, but are constituted within respective cultures they live in.

When problematizing the dominance of Western-derived liberal democracy, we must refrain from simplistically regarding the imperial West taking over the Rest. On the contrary, modernity is far from being the prerogative of the West, but is embedded in Bhutan, where the monarchy and Buddhism have served to propel the move toward a “direct-access society”. We must not lapse into the West-Rest dichotomy, inadvertently distinguishing Bhutan’s “natural democracy” from Western thoughts and practices. By acknowledging multiple forms of modernity in this way, while avoiding counterposing the single “global” modernity with “local” cultures alien to it, we will be able to start conceptualizing a multipolar world.

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# **Was Tobacco Described in Bhutanese Buddhist Texts Before the 16th Century?**

*Michael S. Givel\* and Rebecca A. Sherry\*\**

## **Abstract**

The small Himalayan Kingdom of Bhutan has banned tobacco sales since 2004, citing prophets of the country's state religion, Mahayana Buddhism, who described the evils of tobacco 200 years before its introduction to Asia. To address whether tobacco really is the plant designated in these early texts, we commissioned new translations of these documents, including one of the first translations out of Choekey of the first legal code of Bhutan, known as "The Golden Yoke of Legal Edicts." A set of allegorical stories predict that a demon will make a plant appear that will be smoked, sniffed or eaten, and will cause a myriad of physical and societal ills. The stories in the ancient documents are allegorical and apocryphal (in the sense of mystic and esoteric) and do not describe the plant in enough detail to identify it as any real plant. In some cases, the word "thamakha," meaning "the very worst black poison," was transliterated as tobacco. Nevertheless, modern day interpretations in Bhutan of "thamakha" as tobacco are congruent with Buddhist tenets that intoxicants of any type will cloud the mind and inhibit the journey to seek Nirvana.

## **Introduction**

In this paper, we review the history of Bhutan in relation to tobacco and discuss new translations of the ancient texts said to pertain to tobacco to determine whether tobacco could have been referenced in those texts originating before 1616.

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In 2004, the small, eastern Himalayan Kingdom of Bhutan enacted a far reaching and unique law banning all tobacco sales while allowing importation of small amounts of tobacco for personal use (*Kuensel* Newspaper 2004a, 2004b, 2004c). Even in light of tightening Western regulations on tobacco, a complete national ban is distinctive. This isolated kingdom (the size of Switzerland, sandwiched between India and China) has discouraged tobacco use based on Buddhist principles from the inception of its first formalized legal system in 1651 (Givel 2009). Records of the Bhutanese National Assembly from the 1990s and early 2000s show that religious reasons for the ban were at least as powerful as public health concerns (National Assembly of Bhutan 1991, 1995, 2004). Buddhism is an integral part of everyday life and governing in Bhutan (Pommaret, 2006) and the tobacco ban has been linked to those deeply held religious beliefs (Givel 2009; Pommaret 2006). In 1991, in one of the several debates leading up to the tobacco sales ban, members of the National Assembly harkened back to their beloved Guru Rinpoche as declaiming tobacco for both its immediate and future negative effects in the 8<sup>th</sup> century (National Assembly of Bhutan 1991, 1995, 2004). However, according to many scholars, tobacco products were not introduced to Asia until 1530 (Borio 2007; Rajasevasakta and Aiyer 1996; World Health Organization 2009).

Guru Rinpoche, better known outside of Bhutan as Padmasambhava, was the 8th century sage who spread Buddhism to the region containing Bhutan and Tibet. In Bhutan, Guru Rinpoche is considered a second reincarnation of the historical Buddha himself, Siddhārtha Gautama (Namse 2007; Sharap 1979). Temples in Bhutan have three idols on their main altar. They usually depict the historical Buddha in the center, the Guru Rinpoche on the right, and the Shabdrung Ngawang Namgyal, Bhutan's founder, on the left ((Pommaret 2006); Sherry 2009 personal observation). For nearly all of Bhutan's history, its government has largely been a theocracy. From 1651 to 1907, Bhutan had a formalized dual system of government with a secular branch, headed by

the Druk Desi, and another branch lead by the Je Khenpo, or head monk (Gulati 2003). After the establishment of a hereditary monarchy in 1907, the Je Khenpo continued to be an important advisor to the King (Zurick 2006). Supporting the Buddhist monastic order through financial support and recognition of Mahayana Buddhism as the state religion remains one of the main functions of the government (Dorji 1997; Gulati 2003; Labh 1996; Rose 1977; Sinha 2001).

The tobacco ban originally had both popular and religious support. A popular movement to ban tobacco began in the early 1990s in the central district of Bumthang, and by 2003, 18 of Bhutan's 20 Dzongkhags (districts) had enacted their own restrictions on tobacco sales and/or use in public places (*Penal Code of Bhutan* 2004; Buddhist Channel 2005; Chakrabarti 2003; Ugen 2003). The religious establishment strongly supported a ban. Specifically at the 82<sup>nd</sup> National Assembly Session in 2004,

The Yangbi Lupon [deputy head monk] said that the concept of tobacco control did not originate today, but had been prevailing since the time of the Buddha. Even Guru Rinpoche had preached about the present and future effects of tobacco consumption. The establishment of religion and health projects by the health sector would help in controlling tobacco consumption. Moreover, the religious community continued to instruct the people on the effect of tobacco from the religious point of view. Tobacco not only caused harm to religion and health, but also caused family problems. Therefore, the people and students were constantly taught and advised to abandon the unwholesome deeds during Dharma teachings (National Assembly of Bhutan 2004).

Members of the National Assembly also stated, "...that the use of tobacco was unacceptable both from a religious and social health (view) in the land blessed by Guru Rinpoche"

(National Assembly of Bhutan 2004). The Royal Advisory Councilors to the King also supported a tobacco ban for both religious and public health reasons (National Assembly of Bhutan 1991). Two different schools of thought have developed as to whether tobacco consumption existed in Bhutan prior to the 1616 A.D. arrival of Shabdrung Ngawang Namgyal, the Tibetan warrior monk who founded Bhutan (Chakrabarti 2003; Lak 2003; Ugen 2003). One school of thought argues that there is no evidence of anti-tobacco provisions in ancient Buddhist texts in Bhutan prior to 1616 A.D (Ugen 2003). Others have argued that there is evidence that Guru Rinpoche in the 8th century declared that smoking was bad and that no practicing Buddhist should smoke (Chakrabarti 2003; Lak 2003; Pasricha 2004; Sharap 1979; Thinley 2002). Sangye Ngedup, Minister of Health, in 2003 also noted: “He (Guru Rinpoche) may have been referring to opium, but we feel comfortable extending his concerns to tobacco.” (Lak 2003)

### **Materials and Methods**

To determine whether tobacco could have been referenced in texts originating before 1616, we used the following methods. Information on the history of the development of tobacco ordinances in Bhutan is taken from “Tobacco Use Policymaking and Administration in Bhutan” by Michael S. Givel, Kuensel Corporation Limited, Thimphu, Bhutan, 2009. The archival research methods primarily using newspapers, government documents, and elite interviews are described therein. Information on the history of Bhutan and of Buddhism in Bhutan comes from available cited texts. Religious texts referring to tobacco were identified from the pamphlet “The Harmful Effects of Tobacco” by Khenpo Pema Sharap (1979), and from “Ill Effects of Tobacco Products” by Kunzung Thinlay (2002) translated in 2009 by Tashi Tshewang of the Dzongkha Development Commission (which promotes Dzongkha, the national language) in Bhutan. Original copies of these Choekey texts were obtained from the National Library & Archives of Bhutan in Thimphu, photocopied and translated from the Choekey by Rinchon

Khandu of Guru Consultancy and Translation Services of Thimphu, Bhutan, in 2009 (Khandu 2009e, 2009a, 2009g, 2009c, 2009d, 2009f, 2009b). Translation of the pamphlet “Ill Effects of Tobacco Products” by Kunzang Thinlay (2002) was performed in 2009 by Tashi Tshewang. Plant descriptions from these texts were discussed with Sonam Wangchuk, Jigme Thinley, and other researchers at the Institute of Traditional Medicinal Services in Thimphu, Bhutan, one wing of free government-provided health care in Bhutan (Thinley 2002; Wangchuk and Thinley 2009).

There are no paper copies of “The Golden Yoke of Legal Edicts” of the Shabdrung Ngawang Namgyal. One copy exists as stone slates inscribed in Choeky by the 13<sup>th</sup> Druk Desi Sherab Wangchuk between 1744-1763 and attached to the outside wall of a small temple next to the Punakha Dzong (monastery/fort) in Punakha, Bhutan covered by a metal grating. The slates were photographed as overlapping sections and relevant portions were translated by Dr. John Ardussi, Senior Fellow with the University of Virginia’s Center for Tibetan Studies (Ardussi 2007, 2009). Other scholarly works were consulted as cited for other aspects of the history of Bhutan, translations of better known Bhutanese historical documents, and the history of tobacco, cannabis and opium in Asia.

## **Results**

None of the anti-tobacco references cited in the government documents since the 16<sup>th</sup> century we examined came directly from the writings of Padmasambhava himself. However, Padmasambhava prophesied that holy men would come after him and “uncover” some of his writings later when people were better able to receive them (Sharap 1979; Urygen 1995; Gymats 2012). The discoverers of such texts are known as tertöns and the texts themselves are called treasure texts or terma (Gymats, 2012 #60). Tertöns lived from the 11<sup>th</sup> century to the 19<sup>th</sup> century. The terma are taken by devotees to be the words of Padmasambhava himself (Gymats 2012; Sharap 1979; Urygen 1995).

We obtained copies of ten original Choekey documents from nine different tertöns from the 11<sup>th</sup> to 18<sup>th</sup> centuries that were cited in two government documents as describing the evils of tobacco use (Sharap 1979; Thinley 2002). The oldest is a brief passage from Machig Labdrön (1055-1149), a great Tibetan yogini (Allione, 2000 #3; Norbu, 1986 #43). She mentioned that an unnamed plant containing all the five poisons would be grown in China and become the food of the Tibetan people and cause great societal ills there. The five poisons, arrogance, ignorance, anger, desire, and delusion, are a common theme in Mahayana Buddhism (Gray 2007). Machig Labdrön gives no further description of the plant.

The next tertöns to be connected to tobacco emerged in the 14<sup>th</sup> century. Sangay Lingpa (1340-1396) writes one of the longest passages concerning a plant thought to be tobacco (Khandu, 2009 #34). He tells a tale of a demoness in remote China who made a curse that a plant called *Thamakha* or *Hala Nagpo* will grow and flourish in the future, diminishing the light of the Dharma, making the gods angry, and bringing forth disease, war, frost, and famine. In Chhokey, “Tama” means very worst and “Kha” means difficult to get. “Hala Nygpo” means black poison (Thinley 2002; Wangchuk and Thinley 2009). Sangay Lingpa describes the plant as having

. . . five different colors and five different types. The colors will be yellow, blue, white, red, and black all of which carry the five poisons in them. (Khandu 2009f) pp. 1-2.

It is described as having a noxious-smelling seed. Additionally,

...the plant will foster blood pressure, tuberculosis, fits and other illness associated with the liver. It will blacken the teeth and cause joint pain. Further, it will dim both the eye-sights and the intelligence of a person leading to the loss of memory. The body of

the person will emit foul smell and so too the place  
the person lives. (Khandu 2009f)

Its smell will rise to the sky and find its way into the ground where it will anger spirits. There will be drought, hail, frost, crop failure, earthquakes, famine, and war. People are entreated to avoid this plant (Khandu 2009f).

Although different species and varieties of tobacco do have white, pale blue and pink flowers, and it does blacken teeth and smell, these descriptions are insufficient to identify the plant referred to in the text as any real, existing plant species, which could have myriad different leaf and flowers forms. Passages such as this appear to be more metaphorical than descriptive (Goodspeed 1947).

Most of the later texts tend to be brief and similar in vein. Ratna Lingpa (1403-1478) also refers to the plant as *Hala Nagpo* (R. Lingpa 2009). Five others mention its smoke (Dorji 2009; Khandu 2009a, 2009d, 2009b). The longest of all the excerpts comes from Duddul Dorji (Dorji 1997; Dorji 2009). He describes a meeting of five devils incensed at how the Dharma (Buddhist teaching) is spreading in the world. They each demonstrated their various powers, represented as frighteningly deformed and monstrous animals: a snake for death and disaster; a frog for crop-destroying hail and frost; a bear for dragging monks and practitioners from their vows and disciplines and undermining law; a fanged bear with the head of a yak for warfare, robbery and arson; and a chimera of a frog, a snake, and a scorpion to reduce the Dharma to dust. The five devils then pooled all these powers into one terrible ball and each spat on it. This was handed over to a devil queen and her minister to release into the world. But at that time the world was well protected and it was not until thousands of years later that they were able to powder the ball and disperse it in all directions. Eventually, a new plant began to grow in south India where it fell into the hands of a prostitute.

She took home (sic) and started to smoke it. A different kind of happiness filled her heart and not long after her experience, many people began to follow suit. Some of them made a powder out of it and started to sniff it. Others started to eat it and still others started to smoke it spreading out all over India. (Dorji 1997; Dorji 2009)

Rigzon Dorji went on to predict the plant would cause the fall of several nations, diseases, societal ills, and eventually the rebirth of the five devils (Dorji 1997; Dorji 2009). However, Dorji does not give a visual description of the plant.

None of these texts describe any other details of the plant that would allow it to be identified to any plant family, such as the Solanaceae (the plant family that includes tobacco), much less genus or species (such as *Nicotiana tabacum*, cultivated tobacco). The descriptions appear to be merely metaphorical. Later readers took a great leap of imagination in assuming they referred to tobacco. But that leap was based on the Buddhist precept not to engage in activities that might cloud the mind (Mitchell 2008; Morgan 2010). To answer whether tobacco *could have* been present in Bhutan prior to 1616, we next analyze the first appearances of tobacco in Asia and Bhutan.

### ***Tobacco in Asia***

The genus *Nicotiana* consists of at least 86 species worldwide, most of which contain nicotine (Goodspeed 1954; Marks 2007; Wheeler 1935). Native tobacco species are found in North and South America, southwest Africa, some Pacific Islands, and Australia (Horton 1981). Tobacco species have a wide range of floral and vegetative shapes (Burbridge 1960; Clarkson et al. 2004; Goodspeed 1954; Horton 1981; Wheeler 1935). Almost all scholars and historians agree that the tobacco plant was first cultivated in the New World in Central and South America as early as 6000 B.C.E. (Borio 2007; Rajasevasakta and Aiyer 1996; World Health Organization 2009). Indigenous people in Central and South America

began smoking tobacco by 1 B.C. (Borio 2007; Rajasevasakta and Aiyer 1996; World Health Organization 2009). Tobacco consumption was unknown in the Old World until 1492 when Christopher Columbus discovered tobacco smoking and brought tobacco to Europe (Rajasevasakta and Narvan Aiyer 1966, Clarkson et al. 2004, Borio 2007, WHO 2009). Tobacco products were first brought to China in 1530 and to India in 1600 (Borio 2007; Clarkson et al. 2004; Rajasevasakta and Aiyer 1996; World Health Organization 2009). As for tobacco use in other parts of the world, Borio has concluded:

Although small amounts of nicotine may be found in some Old World plants, including belladonna and *Nicotiana africana*, and nicotine metabolites have been found in human remains and pipes in the Near East and Africa, there is no indication of habitual tobacco use in the Ancient world, on any continent save the Americas (Borio 2007).

Possible evidence that tobacco may have been used independently of New World tobacco plants was presented in a 1993 peer-reviewed scientific article by Parsche, Balabanova and Persig in the prestigious medical journal, *The Lancet*. In this study, the researchers tested for evidence of nicotine in 72 Peruvian mummies, 11 Egyptian mummies, skeletal material from two Sudanese corpses, and ten south German corpses, all dating from 5000 B.C.E to 1500 C.E. (Parsche, Balabanova, and Persig 1993). There has since been much controversy surrounding this work, but none of the remains were from Asia.

Records from Captain James Cook's first voyage in 1770 to the east coast of Australia indicate that Aborigines chewed an unknown herb (Edlin 2009; Rudgley 1998). *Nicotiana suaveolens* was later definitively identified as occurring in parts of Australia in the early 18th century (Wheeler 1935, Marks 2007, Lee 2009).

Prohibition against tobacco use became an early Buddhist religious concern of the ruling authorities of Bhutan. Shabdrung Ngawang Namgyal, before his death in 1651, crafted the first legal code of Bhutan also known as “The Golden Yoke of Legal Edicts” to prescribe proper secular and spiritual conduct (Ardussi 2007). This legal code contained a specific anti-tobacco provision (Ardussi 2007). No known paper copy of this legal code is yet available (Ardussi 2007). However, near Punakha Dzong stands a small house of worship. Etched in large black slates affixed to its wall is the only known copy of Shabdrung Ngawang Namgyal’s original legal code (Figure 1) (Ardussi 2007)

The text of the legal code of Shabdrung Ngawang Namgyal was inscribed on the black stone slates by the 13th Druk Desi Sherab Wangchuck sometime between 1744 and 1763 (Ardussi 2007). The anti-tobacco provision of Shabdrung Ngawang Namgyal’s legal code states:

Functionaries and servants of whatever rank, high or low, once they have entered the Dharma door of the Choje Drukpa, may not perform deeds that violate the Dharma, such as sleeping with women, using intoxicating substances such as tobacco and alcohol, etc. (Ardussi 2009)

In 1729, the tenth Druk Desi, Mipham Wangpo, issued his own legal code. The practice of rulers issuing legal edicts based on Buddhist cannon and moral principles was a tradition carried on from Tibetan leaders, and is well known to draw upon the edicts of earlier rulers. The first mention of tobacco in Mipham Wangpo’s Legal Code of 1729 sounds similar to the writings of the tertöns, except that the present tense is used rather than the future tense:

. . . this evil substance called *tha-ma-kha* (tobacco) which is a cunning trick prepared by demons, is now being used continuously by all the people and the peasants, including bodyguards and menials; not

only does this pollute the body, speech and mind-supports but also it causes the gods above to decline, it disturbs the spirits of intermediate space and injures the *nāgas* of the underworld. From this cause there continuously arises in the world the fate of diseases, wars, and famines and so it conforms with many prophecies given by the great teacher Padma[sambhava] (Aris 1979).

This 1729 Legal Code then goes on to discuss government efforts that should be taken to end the importation of tobacco from India:

If people in any of the districts found to be indulging in the trading and smoking of tobacco, this ruinous sustenance, and if this practice is not forcibly eliminated by the *rzdong[-dpon]*, *mgron[-gnyer]*, government representatives and officials, the village counselors and messengers, then things will definitely fall on their own heads. The officials on the Indian frontier must prohibit [the import of tobacco] at the *duars* (foothills) themselves. Control through these measures is important (Aris 1979).

Bhutan's Legal Code of 1729 seems to have drawn significantly from the 1681 Tibetan Guidelines for government officials (Cüppers 2007). However, the two documents take very different attitudes to tobacco smoking. In Bhutan, tobacco smoking was generally banned because it was thought to be against the state religion, with officials at the southern border with India commanded to take measures to prevent the importation or smuggling of tobacco. In the Tibetan document, smoking was prohibited only in government buildings because of fire hazard (Cüppers 2007).

In George Bogle's detailed account of his visit to Bhutan in 1775 as the first British envoy, he mentions that tobacco was grown in the border region of Bhutan and India, but he does not describe its consumption in Bhutan, although the "great

consumption” of tobacco in Tibet is mentioned more than once (Markham 1876). Samuel Turner, documenting a 1783 diplomatic mission to Bhutan and Tibet, noted tobacco growing in northern Bengal, Bhutanese travelers smoking pipes, and listed tobacco as being imported into Tibet from Bengal, Bhutan, and China (Turner 1800). Pemberton in 1865 also mentions tobacco importation in his report on his 1838 mission to Bhutan (Pemberton 1838). White in 1909 and Bell in 1928 report high tobacco use in Bhutan among people of all stations and walks of life during the late 19th and early 20<sup>th</sup> centuries (Bell 1928; White 1909). The scholarly evidence is quite strong that tobacco was not known in Asia or Bhutan until the 16<sup>th</sup> century (Borio 2007; Rajasevasakta and Aiyer 1996; World Health Organization 2009).

### **Discussion**

The emphasis placed on smoke and smoking in the texts of the ancient tertöns suggests tobacco, but the diseases it is predicted to bring and the euphoric feelings it causes have no evidence of links to tobacco. Other plant drugs that can be smoked grow in the region, namely, cannabis and opium (Abel 1980; Lak 2003; Merlin 1984; Polunin and Stainton 1984; Press, Shrestha, and Sutton 2000; Scott 1969; Zhengyi and Raven 2009; Zhengyi, Raven, and Deyuan 2002). Additionally, all three can be smoked, sniffed or eaten in one form or another. Cannabis is native to southern Asia and was known in ancient Chinese medicine, pre-dating Buddhism by thousands of years. It is thought to have been brought to India around 500 C.E., possibly earlier (Abel 1980). Opium was used medicinally and recreationally in the Middle East even earlier (Merlin 1984; Scott 1969). It was thought to have been introduced to India by Alexander the Great in 330. B.C.E. and introduced into China by traders about 400 C.E. (Merlin 1984; Scott 1969). Both drugs would not have reached the isolated valleys now known as Bhutan until much later, but a wandering monk in the 8<sup>th</sup> century (such as Padmasambhava) or later (such as the tertöns), could easily

have predicted that either opium or cannabis or both would eventually arrive there.

Five poisons, or five vices that can cloud the mind, being represented by five colors is a common theme in Mahayana Buddhism dating from at least 700 C.E. (Gray 2007). Yellow signifies arrogance, greed or pride; blue is for ignorance; white for anger or hatred; red for lust or desire; and black for delusion (Gray 2007). In *Nicotiana*, flowers can be white, lavender purple that can be taken for light blue, many shades of red and pink, and pale yellow, however, they do not occur in black (Goodspeed 1947). Opium poppy flowers exist in many shades of white, pink, purple, lavender and red, but not in yellow or black (Press, Shrestha, and Sutton 2000; Zhengyi and Raven 2009; Zhengyi, Raven, and Deyuan 2002). Cannabis flowers are green and inconspicuous (Press, Shrestha, and Sutton 2000; Zhengyi and Raven 2009; Zhengyi, Raven, and Deyuan 2002). The colors of the plant described in the tertön's texts do not fit tobacco, nor opium, nor cannabis, but appear to be a metaphor covering all types of vice. One of the five precepts obeyed by Buddha's early followers as well as many Buddhists today is to avoid alcohol and other drugs that may cloud the mind (Mitchell 2008; Morgan 2010). The injunctions of the tertöns of the second millennium to avoid this mysterious plant sometimes interpreted as tobacco and of the current Je Khenpo of Bhutan to avoid tobacco are both rooted in attempts to maintain mindfulness and avoid activities that could harm.

Finally, the lack of concern about tobacco from Tibetan rulers, who had the same reverence for Padmasambhava, indicates that the texts can be interpreted differently. There is no conclusive written or botanical evidence that tobacco existed in Bhutan at the time that the early treasure texts were written. All available evidence indicates that tobacco was introduced much later, beginning in the 1600s. The Bhutanese prohibition of tobacco use beginning in the 1600s was a combination of Buddhist religious piety and possibly concern about illegal economic activity at the Indian border.

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# **Examining Rupee Reserves in Bhutan: An SVAR Approach**

*Jigme Nidup\**

## **Abstract**

The substantial deterioration of rupee reserves in 2012 had detrimental effect on the economic growth in Bhutan. Therefore, this study investigates the implication of government investment on construction, private credit expansion and imports from India, on the rupee reserves through a four-dimensional SVAR approach. The results indicate that in the immediate term, it is the government construction expenditure, private credit growth and imports from India that deteriorates the rupee reserves. Over the medium period, it is found that the government investment on construction leads to private credit expansion. Though government investment on construction is desired for economic growth, policy makers, however, should strategize investments so that it does not create rapid private credit growth.

## **Introduction**

Bhutan has seen unprecedented economic growth, averaging 8.15 percent (NSB, 2013) over the last decade, contributed mostly through investment in hydroelectric power constructions. In last ten years, the government investment on construction alone contributed around 9.0 per cent (NSB, 2013) to the real economic growth. The growth in government construction has also exhilarated the private construction industry. Subsequently, the private sector credit has also increased from Nu. 4017.9 million in 2003 to Nu.48751.8 million in 2013 (Royal Monetary Authority [RMA], 2013).

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Due to heavy reliance on imports, the terms of trade with India is almost always negative. With huge surge in demand for rupees, Bhutan experienced severe rupee shortage problem starting 2012. To keep up with the demand, the RMA resorted to selling US dollar 200 million, which converted into rupees 10,289.5 million. However, in just about three months, the rupee reserves depleted by almost 50 per cent and became a major concern for both RMA and the government (Cabinet Secretariat, 2012).

In a radical move by the RMA, vehicle loans, housing construction loans and other personal consumption related loans were stopped in order to reduce imports from India. With majority of the private construction industry stalled, such move had significant impact on the economic growth. The real economic growth rate is recorded at 2.05 (NSB, 2014) in 2013, which is the lowest growth rate over the last decade.

It is fundamental to know the root cause for rupee deterioration. Without finding the source, implementing policy initiatives like controlling loans may correct the economic imbalance in the short run but may have adverse effect in the long run. Therefore, this paper explores the causes of the rupee deterioration and suggests policy recommendations. While doing so, this study contributes in three different ways to the existing literatures.

Firstly, this study is an extension of the previous studies undertaken to study the causes of the rupee depletion. In the task force report (Cabinet Secretariat, 2012), the rupee shortfall is deemed largely as the consequence of deficit current account balance against India. Findings from the report suggest that, the government expenditure has no direct relationship with the rupee shortage and it is the financial sector credit growth that exerts pressure on the rupee reserves. However, the report does not explicitly mention the relationship between government expenditure and private credit growth. Therefore, this study explores such relationship and finds that over the medium term, there is

positive relationship between the government construction expenditure and private credit.

The Bhutan Chamber of Commerce and Industry (BCCI) representing the private sectors conducted an independent study on the rupee crisis. In the report (BCCI, 2012), it is found that, the government expenditure to fund hydropower projects had direct correlation with rupee reserves. This paper also discovers that government expenditure on construction has negative impact on rupee reserves at least in the short run. However, in the medium term, it is found that government construction expenditure increases the rupee reserves.

Rashid (2012) also investigated the causes of the rupee shortfall in Bhutan. He is of the opinion that the main cause is the rapid expansion of the money supply created by the inflows that are meant for hydropower projects. The excess liquidity created within the banks thus led to rapid increase in private credit, which ultimately is invested for imports from India and thus led to the rupee crisis. Similarly, in the study conducted by Ura (2013), he reasons that it is the fiscal sector expansion and credit growth that has led to terms of trade deterioration, which impinged on current account balance and ultimately created the rupee crisis. However, this study finds that there isn't enough evidence to prove that imports from India lead to depreciation in rupee reserves in the medium term.

Secondly, this paper is first of its kind, employing the Structural Vector Auto Regression (SVAR) model to investigate the Indian rupee reserves in Bhutan. Previous studies at best describe the association between variables but fail to overtly measure the simultaneous affect of different variables on the rupee reserves. Therefore, the SVAR model would best assess the situation because the SVAR framework is an empirical model, which allows in exploring the dynamic link within the variables of interest, following certain predetermined theories. The model makes it possible to

quantify the individual structural shocks and establish dynamic link through its impulse response function (Gottschalk, 2001).

Thirdly, Tenhofen, et al. (2009) believes that the use of SVAR has become very popular in studying the monetary policy aspects but there is very limited literature investigating the fiscal policy facet. Since the current study deals with fiscal side of the economy, the study would significantly contribute to the limited literature written on the fiscal policy aspects of a country.

The findings from the study show that, in the short term, it is the government construction expenditure, private credit growth and imports from India that depletes the rupee reserves. Over the medium term, the impulse response analyses show that, government investment on construction significantly increases private credit and private credit expansion significantly reduces the rupee reserves. However, the impact of imports from India on rupee reserves is mixed in the medium term.

The rest of the paper is structured as follows. The next section presents the methodology, followed by the data, and then by empirical results of the short run SVAR model and impulse response function. The final section concludes and discusses the policy recommendations.

## **Methodology**

The SVAR model allows the economic theories to serve as the basis for necessary restriction required for identification of the structural model (McCoy, 1997). Due to this main advantage, the SVAR framework is applied to account for relationship between different variables in the study. The kind of SVAR model for the study is based on AB model adopted from Amisano and Giannini (1997). In order to arrive at AB model, we first express the general model as:

$$Ay_t = \Omega(L)y_t + B\varepsilon_t \quad (1)$$

where  $y_t$  is the  $k$  vector of endogenous variables at time  $t$ ,  $\Omega(L)$  is a matrix polynomial in the lag operator,  $L$  of length  $p$  and  $\varepsilon_t$  is a vector of serially uncorrelated, zero-mean, structural shocks with an identity contemporaneous covariance matrix ( $\Sigma_\varepsilon = E[\varepsilon_t \varepsilon_t'] = I$ ). The parameter  $A$  and  $B$  is the  $k \times k$  matrix.

In order for the endogenous variables to be expressed as a function of its lagged values, the equation (1) is expressed in a reduced form as:

$$y_t = A^{-1}\Omega(L)y_t + A^{-1}B\varepsilon_t \quad (2)$$

Equation (2) can also be written as:

$$y_t = A^*(L)y_t + u_t \quad (3)$$

where  $A^*(L) = A^{-1}\Omega$  and  $u_t = A^{-1}B\varepsilon_t$ .

To better understand the shock and response, we subtract from each side of the equation (1) by the expected value of  $y_t$  implied by the model, conditional to the information available in time  $t-1, E_{t-1}y_t$ . This gives us, what is popularly known as the AB model:

$$Au_t = B\varepsilon_t \quad (4)$$

Where,  $A$  includes the structural contemporaneous coefficient and  $B$  is a diagonal matrix containing their reduced form estimates.

**Identifying restriction**

Following structural equation (4), the SVAR model can be just identified with appropriate ordering of the variables in matrix  $A$  because the orthonormal innovations,  $\varepsilon_t$ , makes it possible to identify restriction on  $A$  and  $B$ . The identification can be shown as:

$$A\Sigma A_i' = BB'_i \quad (5)$$

The contemporaneous restrictions on  $A$  matrix are used to identify shocks to study the short-term responses. In order to do so, there is a need of at least  $k(k+1)/2$  restriction imposed on  $2K^2$  unknown elements in  $A$  and  $B$ . In order to identify  $A$  and  $B$ , at least  $2K^2 - k(k+1)/2$  additional identifying restriction is needed.

The model is constituted of four endogenous variables, GCONST, PVTCRD, IMIN and IRR. Their errors of the reduced form VAR are:

$$u_t = u_t^{GCONST} + u_t^{PVTCRD} + u_t^{IMIN} + u_t^{IRR} \quad (6)$$

and their structural disturbances are,

$$\varepsilon_t = \varepsilon_t^{GCONST} + \varepsilon_t^{PVTCRD} + \varepsilon_t^{IMIN} + \varepsilon_t^{IRR} \quad (7)$$

where, GCONST is the government investment on construction, PVTCRD is the private credit, IMIN is the imports from India and IRR is the Indian rupee reserves in Bhutan. This model has a total of 32 unknown elements and 10 parameters, which can be identified. Therefore, at least 22 additional identifiable restrictions are used to identify the full model.

After imposing the zero exclusion restrictions, the full model takes the following form:

$$\begin{bmatrix} 1 & 0 & 0 & 0 \\ Y_{21} & 1 & 0 & 0 \\ Y_{31} & Y_{32} & 1 & 0 \\ Y_{41} & Y_{42} & Y_{43} & 1 \end{bmatrix} \begin{bmatrix} u_t^{GCONST} \\ u_t^{PVTCRD} \\ u_t^{IMIN} \\ u_t^{IRR} \end{bmatrix} = \begin{bmatrix} b_{11} & 0 & 0 & 0 \\ 0 & b_{22} & 0 & 0 \\ 0 & 0 & b_{33} & 0 \\ 0 & 0 & 0 & b_{44} \end{bmatrix} \begin{bmatrix} \varepsilon_t^{GCONST} \\ \varepsilon_t^{PVTCRD} \\ \varepsilon_t^{IMIN} \\ \varepsilon_t^{IRR} \end{bmatrix} \quad (8)$$

**Impulse response functions**

The impulse response function of the SVAR model can be derived from the Vector Moving Average (VMA) representation, which is obtained by rearranging equation (3), leading to:

$$y_t = (I - A^*(L))^{-1} u_t \quad (9)$$

The polynomial  $(I - B(l))$  is assumed to be invertible.

Equation (9) can also written as:

$$y_t = \Xi(L)u_t \quad (10)$$

where  $\Xi(L) = (I - A^*(L))^{-1}$

To better understand the MA representation, we expand the equation (10) as follows:

$$Y_t = u_t + (\Xi_1 \times u_{t-1}) + (\Xi_2 \times u_{t-2}) + \dots \quad (11)$$

The coefficient in matrix polynomial  $\Xi(L)$  can be expressed as:

$$\frac{\partial y_{t+s}}{\partial u_t} = \Xi_s \quad (12)$$

It follows that  $\Xi_s$  represents the response of output in period  $t + s$  to a unit innovation in the disturbance term  $u$  occurring in period  $t$ , holding all other innovations at all other dates

constant.  $s = 1, 2, 3, \dots, \infty$ . The resulting plot gives the impulse response function of  $y_t$  to a unit innovation in  $u_t$ .

### ***Ordering of the variables***

The shock identification scheme in this study is based on Cholesky decompositions (Amisano and Giannini, 1997). Since, the Cholesky decomposition requires plausible ordering of the variables, findings from the previous studies and the related foreign literatures are used as the guide, in order to correctly identify the contemporaneous relationships between different structural shocks.

In a study conducted by Wu and Zhang (2009) on the effects of government expenditure on private investment, they found that, in the long run, government expenditure and foreign direct investment crowded in private investment. In addition, study undertaken by Funke and Nicke (2006) saw that government expenditure led to deterioration in trade account. Further, Zhou (2007) discovered that in developing countries with low political risk, international reserves and fiscal policy were related. But the reserves depended on the fiscal policy interventions of the government. Finally, it is uncovered that, in the developing economies, both current account deficit and credit expansion together with monetary expansion increased the risk of financial crises. The impact was found more robust in case of credit expansion than the current account (Ganioglu, 2013).

Directed by these studies and complemented by the local studies, the government investment on construction is ordered first because the disturbance is unlikely to be contemporaneously influenced by any other structural shocks in the model but only by itself. It is proven in the study conducted by the cabinet secretariat (2012) that government expenditure on construction of hydropower plants come in the form of rupee grants from India. So, the government investment on construction is determined by external forces beyond the variables in the model.

In the study conducted by the BCCI (2012), it is observed that more government expenditure led to growth in subsidiary activities and thus resulted into more credit growth. Therefore, private credit is ordered in the second place assuming that it would infiltrate into the model affecting other variables except for government investment on construction.

Imports from India take up the third position because regardless of the kind of development activities, majority of the goods are imported from India. So, it is assumed that, government investment on construction and private credit growth are all driven to affect imports from India and in turn it is assumed that imports from India will only affect the Indian rupee reserves. Finally, it is assumed that Indian rupee reserves respond to all the shocks of the aforementioned variables.

### **Data**

The choice of variables is also purely determined by the prior studies conducted on the rupee crisis in Bhutan. The GCONST is proxied by the government gross capital formation on construction gathered from the national account series of the National Statistics Bureau (NSB). The PVTCRD is represented by net claims on private sector obtained from the annual report of the Royal Monetary Authority (RMA). In order to incorporate import variable into the model, the IMIN is defined as the ratio of imports from India over the total imports in the country, compiled from the balance of payment estimate with India published by the RMA. The IRR measures the rupee reserves available at end of the period and is taken from annual publication of the RMA.

The availability of time series data cannot be traced back beyond 1983 in case of Indian rupee reserves, imports from India and private credit. Though, data produced by NSB is available from 1980, to align with RMA data, the analysis is carried out from 1983 until 2013 with annual data. Except

for the import figure, remaining variables are converted into their natural logarithms ( $\ln$ ).

***Preliminary analysis***

The descriptive statistics presented in Table 1 shows that, over the period 1983–2013, the IRR series averaged 1508.55 million, with a minimum reserve of 71 million and maximum reserves of 6160.2 million. The IMIN series is found to be negatively skewed and averaged 74.22 percent of the total imports. The variation in PVTCRD as compared to GCONST is phenomenal because the min-max ratio of PVTCRD is way high compared to that of GCONST.

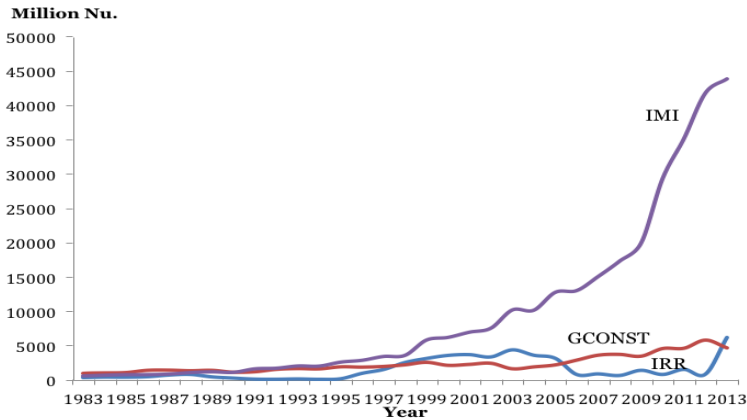
Table 1. Descriptive Statistics (1983-2013)

	GCONST	PVTCRD	IMIN	IRR
Mean	2308.88	8185.63	74.22	1508.55
Std. dev	1253.09	14079.61	8.53	1575.38
Min.	995.93	43.1	53.64	71
Max	5781.27	48751.8	88.43	6160.2
Min/Max ratio	5.80	1131.13	0.1572	86.76
Skewness	-0.5286	0.3353	-0.3590	0.4747
Kurtosis	4.2805	2.926	2.5405	3.4216

Figure 1 and Figure 2 portrays the movement in the variables over the review period. The relationships between the variables are hazy in the 1980's but starting 1990, the figures show that government investment on construction and private credit decreased the rupee reserves. By 1995, it becomes clear that the rupee reserves increased despite the increase in import from India and private credit. The relationship continues till 2003 and such upward movements could be due to huge increase in rupee inflow provided as grants, aids and loans from India for 7<sup>th</sup> and 8<sup>th</sup> five-year plan. Starting the 9<sup>th</sup> five-year plan, Bhutan saw huge increase in construction of hydro power plants and subsequent private construction industry boom. It can be

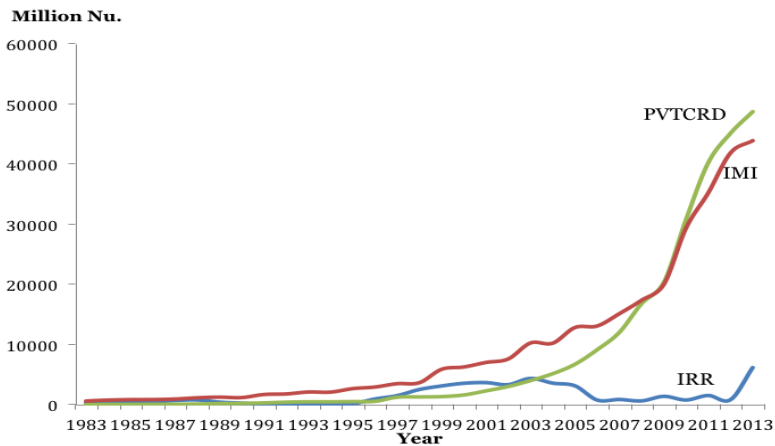
seen that with increase in government investment on construction, increase in imports, and increase in private credit deteriorated the rupee reserves.

Figure 1. Plot of the GCONST, IMI and IRR (1983-2013)



Note: IMI is imports from India and not the ratio of total imports.  
Source: Statistical Yearbook, NSB and Annual Publication, RMA.

Figure 2. A plot of the PVTCRD, IMI and IRR (1983-2013)



Note: IMI is imports from India and not the ratio of total imports.  
Source: Statistical Yearbook, NSB and Annual Publication, RMA.

To further substantiate the relationship between variables, the Pearson's coefficient of correlation is presented in Table 2. It can be noted that, there is significant positive correlation between government investment on construction and private credit, however, the relationship of government investment on construction with imports from India and rupee reserves is found insignificant. The relationship between private credit, imports from India and rupee reserves is also found to be insignificant. Lastly, the relationship between imports from India and rupee reserve is found to be positive but still insignificant.

Table 2. Pearson's correlation matrix (1983-2013)

	GCONST	PVTCRD	IMIN	IRR
GCONST	1.00			
PVTCRD	0.9253*	1.00		
IMIN	-0.0012	0.1284	1.00	
IRR	0.2698	0.2819	0.1203	1.00

Note: \* is the significance level at 1 percent.

In order to test for stationarity of the variables, standard Augmented Dickey Fuller (ADF) and Phillips Perron (PP) unit root test is conducted on the variable. Since none of the variables are found to be stationary at levels except for imports variable, the variables are tested at first difference. All the variables are found stationary at first difference. For uniformity in the analysis, even the import variable is used at first difference in the study. The results are given in Table 3.

Table 3. ADF and PP Unit root test

Variables	ADF test	PP test
lnGCONST	-0.710	-0.568
dlnGCONST	-5.871	-5.923
lnPVTCRD	0.041	0.169
dlnPVTCRD	-5.551	-5.669

IMIN	-5.088	-5.074
dIMIN	-9.615	-12.099
lnIRR	-1.199	-1.451
dlnIRR	-4.462	-4.636

Note: At level, the critical values at 1 percent, 5 percent, and 10 percent are -3.716, -2.986, and -2.624 respectively. At first difference, the critical values at 1 percent, 5 percent and 10 percent are -3.723, -2.989 and -2.625 respectively. The term *d* represents the variables in first difference.

### **Empirical Results**

#### ***The short run structural parameter estimates***

The structural parameter estimates of matrix A and matrix B are presented in Table 4.

Table 4. The structural parameter estimates of matrices A and B

Matrix A				Matrix B			
1	0	0	0	0.155*	0	0	0
0.0001				(.000)			
(0.166)	1	0	0	0	0.136*	0	0
-3.97**	-0.163				(.000)		
(1.346)	(1.358)	1	0	0	0	7.123*	0
						(.000)	
-0.207*	-0.222**	-0.234**		0	0	0	0.391*
(0.052)	(0.072)	(0.074)	1				(.000)

Note: Figures in the parenthesis are standard errors of the parameter estimates. \*,\*\*,\*\*\* are significance level at 1 percent, 5 percent and 10 percent respectively.

First, the contemporaneous coefficient relations are discussed followed by its significance. The matrix presented in Table 4 shows the coefficients along with its significance. It is found that, over the review period, GCONST, PVTCD and IMIN are found to be an important determinant of the IRR.

The contemporaneous effect of GCONST on PVTCRD is found to be positive but insignificant whereas, the effect is negatively significant on both the IMIN and the IRR. The impact of GCONST on IMIN is counterintuitive but such relationship is possible in the short run. It indicates that increase in GCONST uses domestic sources first thereby reducing imports in the beginning. It also shows that increase in GCONST does not necessarily convert into imports immediately. The negative impact of GCONST on IRR shows that when there is a percent increase in GCONST, IRR deteriorates by 0.21 percent.

The short run increase in PVTCRD is found to have negative impact on IMIN and IRR. However, the effect is found insignificant on the IMIN but is significant at 5 percent confidence level on the IRR. The contemporaneous coefficient suggests that, when there is 1 percent increase in PVTCRD, the IRR decreases by 0.22 percent in the short run. This finding concurs to the judgment made by Rashid (2012), Ura (2013) and Cabinet Secretariat (2012), where it is believed that it is the credit growth that has led to depletion in IRR.

Similarly, IMIN is found to have negative impact on the IRR and the effect is found significant at 5 percent confidence level. The coefficient in the matrix indicates that, IRR decreases by around 0.23 percent, when there is 1 percent increase in IMIN. Thus, it shows heavy reliance on imports, which drains the rupee reserves.

However, the belief that increases in GCONST and PVTCRD leads to increase in imports from India cannot be supported at least in the short run. The transmission mechanism, which leads to depletion in IRR needs to be further studied as it is beyond the scope of this paper. Most probably, such is possible through services payments, remittances and other sources.

The results generated in the econometric models rely on certain assumptions about the variables that are used. When

the assumptions are not met, the results become doubtful (Osborne & Waters, 2002). In order to validate the results, three post estimation tests are conducted in this study and results are presented in Table 5, Table 6 and Table 7 in the appendix. First, the eigenvalue test finds that the model satisfies the eigenvalue stability condition. Second, the Lagrange multiplier (LM) test suggests no autocorrelation. Finally, Jarque-Bera (J-B) normality test confirms that all the variables are normally distributed.

### ***The structural impulse response analysis***

To further corroborate the results, the structural impulse response analysis is carried out to show the medium term scenario. The impulse response function helps in understanding the persistence and dynamic effects of shocks on policy and non-policy related variables. In the model, the structural impulse response analysis is going to assist in determining the affects of one standard deviation increase in government investment, private credit and imports from India on target variables like private credit, imports from India and Indian rupee reserves. The dynamic responses of GCONST, PVTCRD, IMIN, and IRR are predicted up to 10 years ahead using the bootstrap percentile 95 percent confidence intervals.

Figure 3. Response of IRR to various shocks

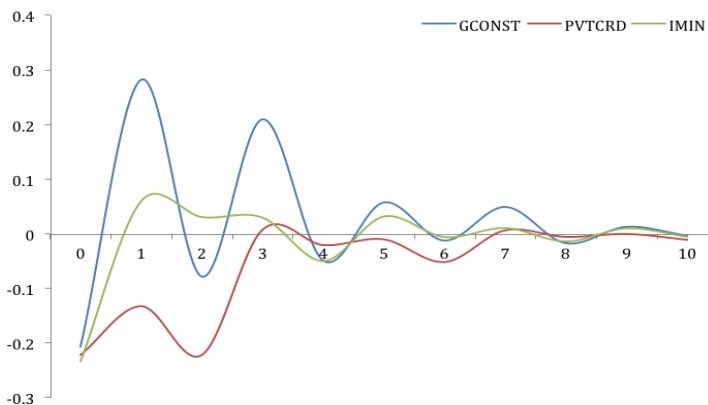


Figure 3 shows the response of IRR to various shocks. The blue line depicts the response of IRR to increase in GCONST. The result remains quite heterogeneous however, the persistence of response is more positive meaning, when there is positive shock on GCONST, there is increase in the IRR. Such positive response from IRR shows that government investment on construction actually helps improve rupee reserves. Such impact over the medium term could be due to 'matching funds' grants received from India for the development activities. As explained in the study conducted by taskforce (Cabinet Secretariat, 2012, p. 13), 'matching funds' are those government expenditure, financed through grants and loans received in Indian rupee. It is believed that such funds would rather help increase rupee reserves.

The red line shows the impulse response analysis of PVTCRD on IRR. It can be seen that the plunge in the IRR remains significant for almost 7 years. Though the IRR tends to increase by end of the third year but the effect is short lived and decreases until the seventh year before the response becomes insignificant. It shows that, increase in PVTCRD significantly leads to fall in IRR over the medium term horizon.

The green line demonstrates the response of IRR to increase in IMIN. The figure shows that increase in the IMIN leads to immediate decrease in the IRR and lasts for almost 8 to 9 months into the first year. By end of the year, the IRR improves and remains so for two years before IRR decreases again till the end of fourth year. After brief increase in the fifth year, the IRR decreases again before the response turns negligible. The inexplicable relationship between the two variables show weak evidence to prove that imports from India deteriorate rupee reserves in the medium term.

There is a need for further research on this relationship between IMIN and IRR but such results could be possible because there is huge illegal transaction taking place, which is possible through the porous border along the southern

towns in Bhutan. In the study conducted by Taneja (1999), it is found that unofficial trade between India and Bhutan amounted to US\$ 31.3 million compared to official trade records of US\$ 7 million in 1994. Furthermore, there is a mention of streamlining the distribution of goods and services with India as recommendation in the taskforce report (Cabinet Secretariat, 2012, p. 46). Moreover, since private construction activities are mostly carried out by Indian expatriate workers, it looks like, remittances of those expatriate workers leads to depletion in rupee reserves. In the annual report (RMA, 2013), it is mentioned that the outward remittances by those workers amounted to Nu. 1.8 billion in 2011/2012. To add on, loans, aids and grants from India which comes in as rupee could be overshadowing imports from India and that is why we can see increase in rupee reserves when there is import.

Detailed individual impulse response analysis graph is provided in Figure 4 in the appendix. The middle line depicts the responses and those outer lines are the standard deviations from the estimated impulse response. The first graph shows the response of PVTCRD to increase in the GCONST. Initially, GCONST leads to decrease in PVTCRD but the impact remains only for a year. Starting second year, PVTCRD responds positively till the end of seventh year with brief change during the fifth year. The result indicates that, there is no immediate impact on the PVTCRD from the increase of GCONST, however, over the medium term, the GCONST significantly increases the PVTCRD.

The second graph shows the impulse response analysis of the GCONST on IMIN. Imports from India decreases for few months initially but by the first year, there is significant increase in imports from India. Though the response becomes negative by second year but bounces back by third year and significantly increases during the fifth year. After that, the impact becomes negligible. It signifies that the GCONST can lead to increase in IMIN over the medium term.

As displayed in the fourth graph, increase in PVTCRD significantly increases the IMIN for two years, after which IMIN decreases before it bounces back by fourth year. The increase in IMIN continues for another two years before decreasing by sixth year after which the impact become negligible. It shows that, increase in PVTCRD also leads to imports at least during the first few years, after that the impact remains mixed.

### **Conclusion and Recommendations**

This study used the structural VAR model to investigate the causes of rupee deterioration in Bhutan. In the short run, the study found that government construction expenditure, private credit expansion and imports from India deteriorated the rupee reserves. Over the medium term, the study uncovered that government investment on construction significantly increased the rupee reserves and private credit. The study also discovered that expansion in private credit significantly deteriorated the rupee reserves even in medium period.

The results indicate that private credit growth is the cause for rupee deterioration both in the short and the medium term. Therefore, private credit should be monitored regularly by the RMA. By doing so, a timely intervention can help manage rupee deterioration in the future. On the other hand, banks should encourage private credits that are meant for investment into agriculture and manufacturing industries. As imports from India instantly worsen the rupee reserves, economic growth spurred by manufacturing and agricultural production would definitely improve terms of trade with India and thus reduce the surge in demand for Indian rupees.

As the fiscal measure initiative, essential and non-essential commodities need to be properly researched and defined in the Bhutanese context. Once the two commodities can be segregated, tax on non-essential commodities need to be heavily imposed. Such initiatives will improve the government exchequer and will condense pressure on the rupee reserves.

Essential items that are within the production capacity of Bhutan should be encouraged with subsidies and tax holidays. Without such measure in place, imports from India will continue due to India's relative advantage over prices compared to Bhutan.

Lastly, the government should be mindful that the increase in private credit is a result of government investment on construction in the medium term. Therefore, the government should be extra cautious in implementing its planned development activities. Huge investment on construction simultaneously or in succession is not recommendable. If such development activities are spread over longer period of time, the rush for private credit can be minimized and lessen the strain on rupee reserves.

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**Appendix**

Figure 4. The individual structural impulse response graph

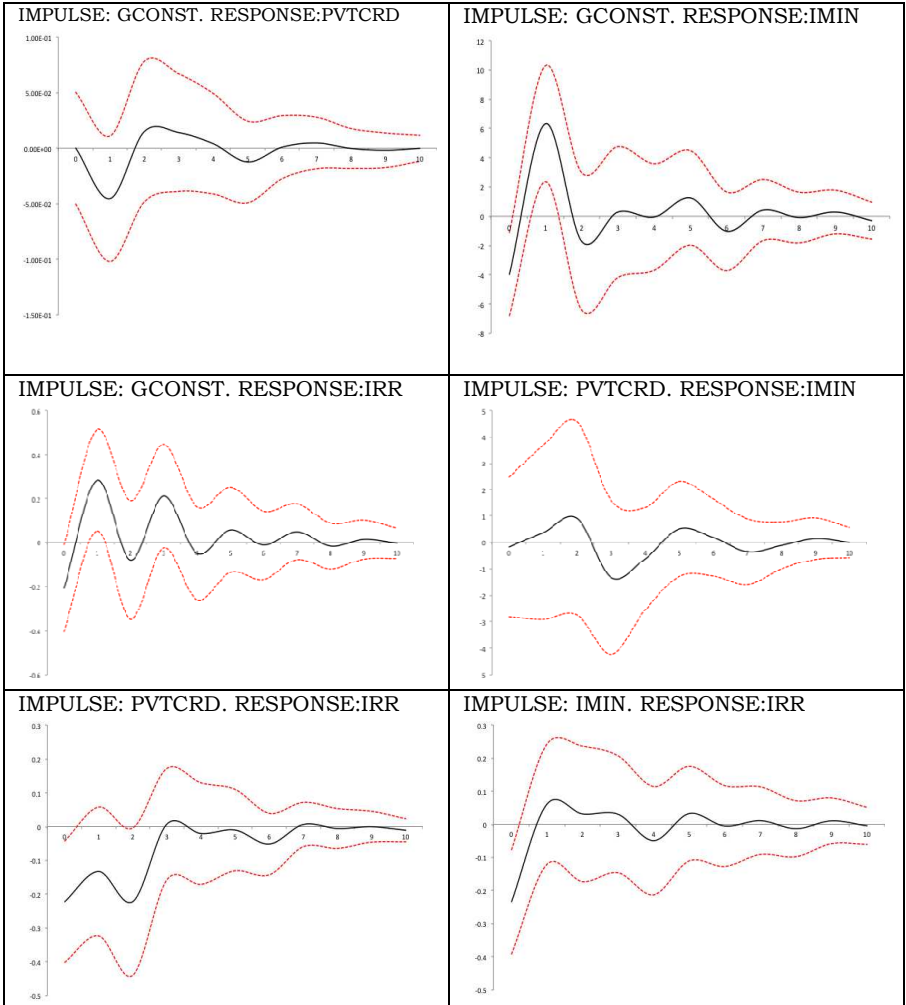


Table 5. Eigenvalue stability condition

Eigenvalue			Modulus
- 0.7299358	+	.03338777i	0.730699
- 0.7299358	-	.03338777i	0.730699
0.6525171			0.652517
- 0.05999279	+	.602482i	0.605462
- 0.05999279	-	.602482i	0.605462
- 0.00830813	+	.5796631i	0.579723
- 0.00830813	-	.5796631i	0.579723
0.3253977			0.325398

All the eigenvalues lie inside the unit circle. VAR satisfies stability condition.

Table 6. LM test for autocorrelation

Lag	$\chi^2$	df	Prob> $\chi^2$
1	15.2898	16	0.50352
2	13.0273	16	0.67076

Table 7. Jarque-Bera test for normality of residual

Equation	$\chi^2$	df	Prob> $\chi^2$
dlnconst	3.217	2	0.20017
dlnpvtrcd	0.531	2	0.7668
dimin	0.848	2	0.65455
dlnirr	1.259	2	0.53284
ALL	5.855	8	0.66347

# **Factorial Validity and Reliability of 12 items General Health Questionnaire in a Bhutanese Population**

*Tshoki Zangmo\**

## **Abstract**

The aim of this study is to test the factorial structure and the internal consistency of the 12-items General Health Questionnaire. A sample of 6861 Bhutanese completed the GHQ-12. Internal consistency was assessed by Cronbach's alpha coefficient. The factorial structure was extracted with an exploratory factorial analysis (EFA). The EFA run on the data yield to a one- factor structure without rotation and two factor structures after rotation. Cronbach's alpha showed a very good internal consistency of the scale ( $\alpha = 0.88$ ). Cluster analysis resulted in two clusters. Overall, the findings support that the GHQ-12 is a reliable and valid instrument for measuring minor psychological distress in a Bhutanese sample.

## **Background**

The General Health Questionnaire (GHQ) was developed in England as a screening instrument to identify psychological distress in primary care settings (Goldberg & Blackwell, 1970). It was originally designed as a 60-item instrument but several shortened versions are currently available, including the GHQ-30, the GHQ-28, the GHQ-20 and the GHQ-12. The shortest version of the questionnaire (GHQ-12) has been extensively validated and used in a number of countries and in different languages (Politi et al, 1994; Chan, 1993). Since this version is brief, simple and easy to complete, and its application as a screening tool in research settings is well documented, it was used to examine and test its

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psychometric properties and factor structure (i.e. one, two or three factors) in a Bhutanese sample.

### **Objective**

The general objective of this study was to assess the underlying dimensional structure of the GHQ-12 item and to evaluate its validity and reliability as an effective measure of distress as an overall score. In particular, the study attempt to explore the factorial structure through factor analysis and apply cluster analysis to test the presence of any subgroups.

### **Data**

The data for the analysis was taken from the Second Gross National Happiness survey 2010 carried out by the Centre for Bhutan Studies, an autonomous research institute in Bhutan. The primary purpose for the survey was to collect information on the living conditions of the Bhutanese in general. The survey was conducted by personal interview with a sample size of 7,142 representative of the population by region and districts.

However, for the current study the sample size reduced to 6,861 due to the missing values in the questions of interest. A number of variables of the GHQ-12 contained missing values at random and further, don't knows were also decided to be re-categorized as missing since they did not provide any additional information. In terms of missing values at random which made (n=182,) 2.5% of the sample proportion, no demographics differences were observed.

### **Instrument**

GHQ-12 consists of 12 questions that are rated on a four-pointer scale and has three types of response codes. Some are coded; 1) less than usual 2) no more than usual 3) rather more than usual 4) much more than usual while others followed; 1) much more than usual 2) no more than usual 3) rather more than usual 4) Not at all and few are coded as; 1) much less than usual 2) less than usual 3) same as usual 4)

more than usual. All the scores are recoded in to 0-3 Likert scale from most negative to most positive value for all the 12 items. Though there are six positively and six negatively worded items, it must be noted that a higher value always indicates a positive response in that particular item and a lower value indicates otherwise.

### **Descriptive Statistics**

Table below presents the mean scores (M), standard deviation (SD), and minimum and maximum value.

Table 1a. Mean scores, standard deviation and minimum and maximum

GHQ	Sample	M	SD	Min	Max
GHQ1	6861	0.8877715	0.6570523	0	3
GHQ2	6861	0.7423116	0.9016026	0	3
GHQ3	6861	0.8580382	0.5835112	0	3
GHQ4	6861	0.8775689	0.6040628	0	3
GHQ5	6861	0.8016324	0.8770662	0	3
GHQ6	6861	0.8924355	0.8553227	0	3
GHQ7	6861	0.9070106	0.6199634	0	3
GHQ8	6861	0.941991	0.6166911	0	3
GHQ9	6861	0.7210319	0.8366648	0	3
GHQ10	6861	0.6926104	0.8052955	0	3
GHQ11	6861	0.6124472	0.8426061	0	3
GHQ12	6861	0.9255211	0.5687362	0	3

### **Factor analysis**

#### ***Testing assumptions***

Prior to the extraction of factors, several tests were carried out to assess the suitability of the data for factor analysis. The adequacy of the correlation matrix of the GHQ-12 item was checked and it was observed that there was a strong and statistically significant correlation <sup>1</sup> between the variables ( $\pm 0.2$  to  $\pm 0.7$ ).

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<sup>1</sup> Table i, Appendix I

The data also met the Kaiser-Meyer-Olkin (KMO) criteria for sampling adequacy as 0.91 which is greater than the suggested minimum of 0.6. The Bartlett's test for sphericity was significant ( $\chi^2 = 35760, p < 0.001$ ). Taken together, these tests suggest that the data meets the minimum standards for factor analysis.

Table 1b. Kaiser-Meyer-Olkin (KMO) criteria for sampling adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.910
Bartlett's Test of Sphericity	Approx. Chi Square	35760.438
	Df	66
	Sig.	0.000

### **Factor extraction**

In terms of extraction methods, principle component analysis was adopted as it is most commonly suggested in establishing preliminary solutions in exploratory factor analysis<sup>2</sup>. PCA is also recommended when no prior theory or model exists<sup>3</sup>.

Although, initial unrotated<sup>4</sup> solution resulted in a single factor solution, the factor pattern was not clear and some variables seem to cross load into a second factor. So, in order to get more interpretable and simplified solution; factors scores were rotated using orthogonal (varimax) rotation. The data was experimented with other methods such as common factor analysis and other rotation methods which also resulted in two factor solutions. However, PCA orthogonal varimax rotation was opted as it produces uncorrelated factors which seem sensible when testing for any underlying diverse structures in GHQ-12 item.

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<sup>2</sup> Pett et al. (2003)

<sup>3</sup> Gorsuch RL. Factor Analysis. Hillsdale, NJ: Erlbaum; 1990.

<sup>4</sup> Table ii, Appendix I

*Factorial validity and Reliability of GHQ*

The Kaiser criterion <sup>5</sup> (eigenvalue>1 rule) along with examination of the scree<sup>6</sup> plot clearly suggested two factors to be extracted. There weren't any strong cross loadings between the factors. The two factors explained 59% of the total variance. Table 2 shows the eigenvalues, percentage of explained variance associated with each factor and their loadings on GHQ-12 items.

Table 2. Varimax orthogonal rotated solution of the factors (n=6861)

	Variable	Factor 1	Factor 2
	Have you...		
GHQ1	been able to concentrate?	0.117	0.718
GHQ2	lost much sleep over worry?	0.776	0.138
GHQ3	felt that you were playing a useful part ?	0.099	0.782
GHQ4	felt capable of making decisions?	0.13	0.763
GHQ5	felt constantly under strain?	0.828	0.147
GHQ6	felt that you couldn't overcome difficulties?	0.704	0.14
GHQ7	been able to enjoy normal day to day activities?	0.235	0.734
GHQ8	been able to face upto your problems?	0.238	0.686
GHQ9	been feeling unhappy and depressed?	0.829	0.212
GHQ10	been losing confidence?	0.739	0.261
GHQ11	been thinking of yourself as a worthless person?	0.684	0.227
GHQ12	been feeling reasonably happy, all things considered?	0.325	0.632
	Eigen values	5.21	1.878
	% of variance explained by each factor	43.41%	15.65%
	% of variance explained by two factors: 59.063%		

The cutoff to define the item as representing the factor was chosen with the factor loading > 0.50. GHQ2, GHQ5, GHQ6,

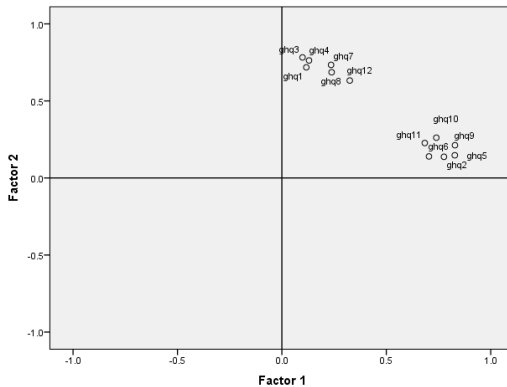
<sup>5</sup> Table iii, Appendix I

<sup>6</sup> Graph 1, Appendix I

GHQ9, GHQ10 and GHQ11 loaded on factor 1 while the rest loaded on factor 2. The negatively worded items form the first factor and positively worded items form the second.

The grouping of the variables into two factors is also obvious in the graph 2.

Graph 2: Factor plot in rotated space



Further analysis of the factorial structure by various demographics<sup>7</sup> also identified the same two factor models.

### ***Goodness of fit***

As a measure of goodness of fit for the two factor solutions, the KMO Measure of Sampling Adequacy for each individual variable was investigated. As observed in the diagonal of the matrix (see Table 3, Appendix I), the correlation coefficients are well above the acceptable level of 0.6. This suggests that the matrix is suitable for factoring.

In addition, each variable has a reasonable amount in common with the other variables. The table of communalities shows communalities for all variables to be above the desired minimum of 0.5 and hence, do not suggest removal of any items.

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<sup>7</sup> Factorial structure of the GHQ-12 is observed by sex and region in Table iv, Appendix I

Table 4. Communalities

	Initial	Extraction
GHQ1	1.000	.529
GHQ2	1.000	.621
GHQ3	1.000	.622
GHQ4	1.000	.599
GHQ5	1.000	.707
GHQ6	1.000	.516
GHQ7	1.000	.594
GHQ8	1.000	.528
GHQ9	1.000	.732
GHQ10	1.000	.615
GHQ11	1.000	.520
GHQ12	1.000	.506

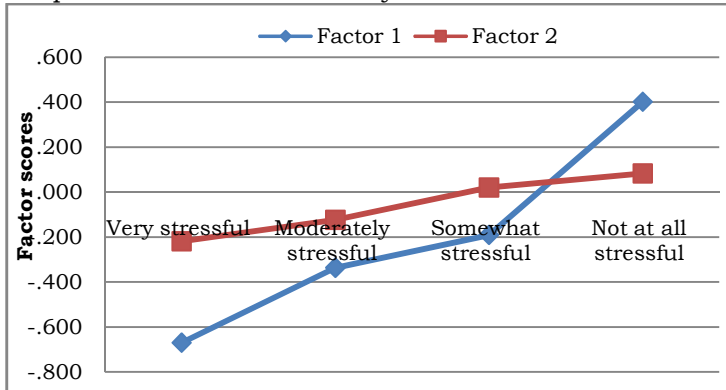
Finally, the model fit is tested investigating the residual matrix. Only 4 out of the 66 residuals (6%) are greater than 0.05 in absolute value, suggesting that this factor model is a good overall fit to the data as shown in Table 5, Appendix I.

***Factor validity***

As previously observed the variables that are similar in nature load together. For instance, all the negatively worded items load on factor 1. The negatively worded items seem to be interpreting some sort of mental distress in respondents. In the same way, positively worded items load on factor 2. The results ensure face validity of the suggested factors.

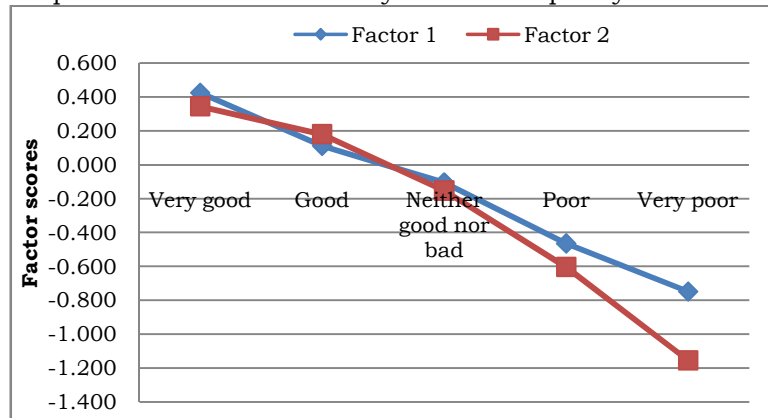
In order to test for construct validity, mean factor scores are compared amongst outcome variables such as level of stress and life quality (Graph 2 and 3). Both the outcome variables are categorical in nature. Here again, as assumed the factor scores increases (higher mental health) as the level of stress in the categories decreases.

Graph 2. Mean factor scores by level of stress



Similar results are observed with level of life quality. As expected, respondents who have “very good” life quality also have higher factors scores indicating higher mental health. The mean factors scores decreases as the categories of life quality decreases to “very poor”.

Graph 3. Mean factor scores by level of life quality



Analysis of Variance (ANOVA) was conducted to determine whether various demographic groups differed in their judgement of the two factors. However, no significant

*Factorial validity and Reliability of GHQ*

differences were observed in any of the demographic <sup>8</sup> variables.

**Factor reliability**

In terms of the 12 items of GHQ, it was previously observed to show homogeneity with its mean inter-item correlation above 0.38. With respect to the two-factor model, the homogeneities (mean inter-item correlation) were 0.56 ( $r = 0.43-0.84$ ,  $p < 0.01$ ) and .47 ( $r = 0.39-0.78$ ,  $p < 0.01$ ) for first and second factors. Further, inter-correlations between the variables and its corresponding factors as shown in the tables below demonstrate reliability of the factors.

Table 6a. Correlations between the six variables and factor 1

	Factor 1 score	GHQ 2	GHQ 5	GHQ 6	GHQ 9	GHQ 10	GHQ 11
Factor 1 score	1						
GHQ2	.776**	1					
GHQ5	.828**	.661**	1				
GHQ6	.704**	.462**	.531**	1			
GHQ9	.829**	.627**	.704**	.511**	1		
GHQ10	.739**	.485**	.533**	.490**	.610**	1	
GHQ11	.684**	.436**	.463**	.425**	.528**	.612**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Table 6b. Correlations between the six variables and factor 2

	Factor 2 score	GHQ1	GHQ3	GHQ4	GHQ7	GHQ8	GHQ12
Factor 2 score	1						
GHQ1	.718**	1					
GHQ3	.782**	.514**	1				
GHQ4	.763**	.456**	.552**	1			
GHQ7	.734**	.468**	.492**	.480**	1		
GHQ8	.686**	.386**	.445**	.495**	.495**	1	
GHQ12	.632**	.395**	.424**	.408**	.527**	.460**	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

---

<sup>8</sup> Table iv in the Appendix indicates that there are no significant difference in the factor scores when observed by both gender and region

**Interpretation of factors**

The item loadings on the first factor (e.g., lost sleep over worry, constantly under strain, unhappy or depressed) seem to indicate the psychological issues faced by individuals and might represent the construct psychological functioning. While those loadings on the second factor (e.g., able to concentrate, play useful part in things, capable of making decisions) seem to be a combination of variables representing the ability of an individual to perform normal social and emotional functions in life and may be expressed as social functioning.

Accordingly, two variables named psychological and social functioning are generated based on the mean of the six variables, which loads on the respective factors. The GHQ score is sum of all the 12 items ranging from 0 to 36. Higher score indicates a positive value.

Significant correlation coefficient between two factors, GHQ score and psychological and social functioning variables supported the convergent validity of the factors.

Table 7. The correlations between the factor scores of GHQ-12 and its factors

	Factor 1	Factor 2	Psychological functioning	Social functioning	GHQ score
Factor 1	1				
Factor 2	.000	1			
Psychological functioning	.970**	.237**	1		
Social functioning	.254**	.966**	.473**	1	
GHQ score	0.788	0.615	0.911	0.794	1

\*\* . Correlation is significant at the 0.01 level (2-tailed).

It seems there are significant differences between mean scores for the positively and negatively worded items. It is also observed that GHQ score is highly correlated with both the factors. The findings here are similar to those previously

reported in other studies (Doi & Minowa, 2003; Montazeri et al., 2003).

When the correlation between the GHQ-12 and quality of life scores was investigated, as expected a significant positive correlation emerged indicating that those who were more distressed showed lower levels of global quality of life. Likewise, significant negative relationship resulted when correlated with stress level.

Table 8a. Spearman correlation

n=6814	Life quality	GHQ score	Stress level
Life quality	1		
GHQ score	0.305	1	
Stress level	-0.1441	-0.3526	1

P value=0.000

***Internal consistency***

The reliability of the measures was examined in relation to the instrument's internal consistency (Cronbach's alpha coefficients) and homogeneity (mean inter-item correlations). Cronbach's alpha coefficients of 0.70 or higher and mean inter-item correlations in the 0.20 to 0.60 range were deemed to indicate good reliability (Nunnally et. al, 1967). The alpha for the whole sample was found to be 0.87 and was the same for both males and females indicating satisfactory results. As previously observed, the 12 items of the GHQ showed homogeneity.

Table 8b. Interim covariance and Cronbach's  $\alpha$

	National	Male	Female
Average interim covariance	0.206	0.171	0.231
Scale of reliability coefficient	0.878	0.861	0.887

## Cluster Analysis

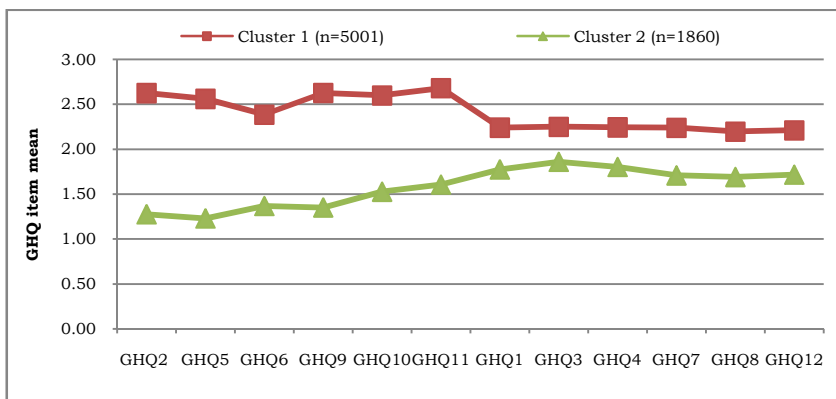
### Clustering method

Next, a hierarchical agglomerative clustering procedure is run to explore the possible number of clusters in the data. Specifically, average linkage with a squared Euclidean distance measure is used for the analysis<sup>9</sup>. Inspection of the agglomeration schedule for changes in the agglomerative coefficient and a visual inspection of the tree dendrogram for key cut points suggest two cluster solutions.

A K-means clustering procedure is next used to classify the data. Using the cluster centroids from the hierarchical clustering procedure, a two-cluster solution is specified as part of a K-means cluster analysis of the sample. Examination of the *F*-test and the mean squared results indicates that all variables in the procedure were statistically significant<sup>10</sup> (P value < 0.01).

### Cluster analysis by GHQ-12

Graph 4. Mean items scores by clusters



<sup>9</sup> Other clustering methods such as Wards method, centroid clustering results in 2 cluster solutions.

<sup>10</sup> Table v, Appendix I

One sample t test was found to be significant (P value<0.01) between the variable groups.

There seem to be a significant difference between the ways two clusters respond to GHQ-12 items. It clearly reveals two groups; high scorers corresponding to cluster 1 (5001 respondents) and low scorers corresponding to cluster 2 (1860 respondents). ANOVA revealed that the item variances<sup>11</sup> were significantly higher across all items for high scorers in comparison with the low scorers.

It must also be noted that the GHQ-12 items have been rearranged so that first six items are negatively phrased (factor 1) while the last six are positively phrased (factor 2). Variances were particularly high for cluster 1 for the negatively phrased items, suggesting a three-way interaction between individual item variance, group item valence and clusters as shown in graph 4. This may suggests that negatively phrased items may be affecting the responses.

For instance, high scorers (i.e. people with high self-reported mental health) seem to score much higher for negatively phrased items as compared to positively phrased items. Similarly, low scorers (i.e. people with high self-reported mental health) seem to score much lower for negatively phrased items.

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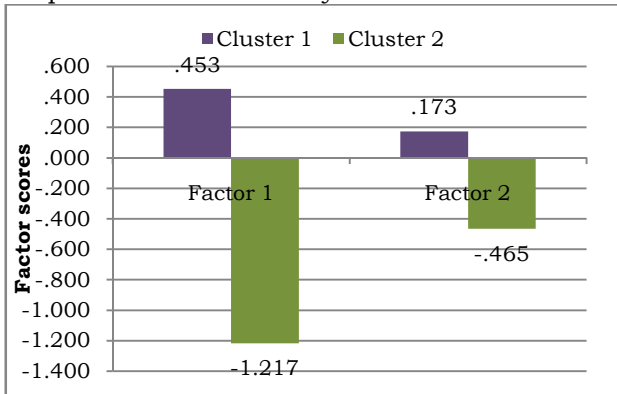
<sup>11</sup> Table vi, Appendix I

Table 9. Means, standard deviations and variances for GHQ-12 by clusters

Group	n	Mean	SD	95% CI			
				Lower	Upper	Min	Max
Negatively phrased items							
Cluster 1	5001	2.578	0.381	2.568	2.589	1.5	3.0
Cluster 2	1862	1.391	0.484	1.369	1.413	0.00	2.33
Positively phrased items							
Cluster 1	5001	2.228	0.359	2.218	2.238	1.00	3.00
Cluster 2	1862	1.756	0.500	1.734	1.779	0.00	3.00
GHQ score							
Cluster 1	5001	28.838	3.384	28.744	28.932	21.0	36.0
Cluster 2	1862	18.882	4.674	18.670	19.095	0.00	28.0

Consistent with the previous findings, the two clusters have significant differences in terms of factor scores as depicted in the graph 5.

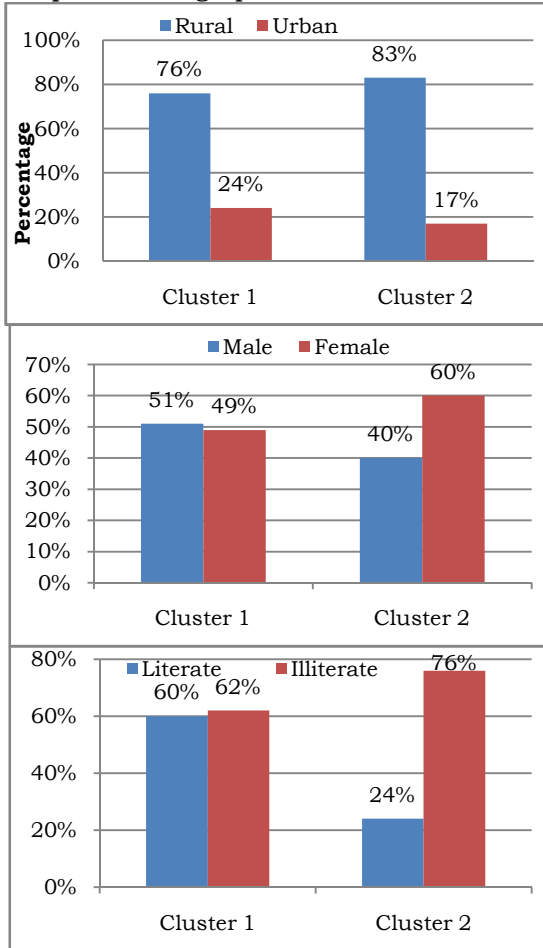
Graph 5. Factors scores by clusters



**Cluster profiling**

The graphs below outlines demographics cluster membership based on K-means clustering solution.

Graph 6: Demographic constituents of the two clusters



As previously observed, respondents in cluster 1 has significantly higher psychological wellbeing (lower levels of psychiatric distress). There were almost equal proportions of men and women in cluster 1.

Cluster 2 represents the low scores and so have lower psychological wellbeing (high levels of psychological distress).

With regards to cluster 2, it was observed that a high proportion of this cluster was women (60%) and respondents who are illiterate (76%).

In both the clusters most of the respondents seem to be from rural areas. This is perhaps due to the high proportion (77.8%) of rural respondents in the sample itself.

### **Discussion**

The aim of this study was to explore the factorial structure underlying GHQ-12 and to apply a cluster analysis to GHQ-12 data to determine whether any subgroups of respondents could be identified.

The largest number of studies (Graetz, 1991 ; Politi et al. 1994; Martin, 1999; Campbell et al. 2003; Shevlin & Adamson, 2005) report similar factor structures to ours, namely one factor on which all of the positively worded items have high loadings, and the other on which the negatively worded items have high loadings.

Based on the validity, reliability and a good overall fit of the two factors model, it does not seem efficient to use GHQ-12 as uni-dimensional construct. However, considering the high inter-factor correlations also found in previous studies (Cheung, 2002; Kalliath et al. 2004; Werneke et al, 2000) suggest the use of GHQ-12 as a uni-dimensional score. Additionally, the Cronbach's alpha showed a very good internal consistency.

Studies have reported one (Lewis, 1992), two (Politi et al. 1994; Kalliath et al. 2004) and three factor solutions (Cheung, 2002; Campbell et al. 2003; Shevlin & Adamson, 2005). Some of this apparent inconsistency may be methodological in origin, including differences in setting, sample size and composition, weighting of item scores and methods of analysis. Exploratory Factor Analysis is prone to divergent findings resulting from a neglect of method effects, specifically a response bias on the items expressing negative

mood states. It might be due to the ambiguous response options for indicating the absence of negative mood states. To test the presence of substantial response bias on the negatively phrased items, further analysis needs to be carried out.

The results of the cluster analysis identified two groups of respondents, high and low scorers, both with different response patterns to the GHQ-12, but particularly the low scorers who tended to score low on negatively worded. This again indicates that the presence of a response bias lies at the heart of explaining the various factor models proposed for the GHQ-12, the uni-dimensional model accounting for differences in variance might perhaps provide the best fit.

### **Conclusion**

The factor structure of the GHQ-12 in a Bhutanese population is given by a variant of a two-factor solution, corresponding to positively worded and negatively worded items. However, the present study provides support for the view that valid measures of mental health should include items that assess both thereby using GHQ-12 on a uni-dimensional scale. While a two-dimensional model may not offer much of an advantage over a one-factor model when screening for psychiatric disorders, the former approach may come into its own in studying the determinants and consequences of well-being.

Hence, future studies should test the factor invariance of the two-factor model of the GHQ-12. For instance, this test could consider demographic (e.g., gender, age) and sociocultural (e.g., ethnic group, dialects) variables. It would also be important to examine the criterion related validity of the GHQ-12, considering some relevant psychiatric symptoms (e.g., suicidal ideation, negative affects) and indicators of work-related stress (e.g., fatigue, burnout). Finally, it would be recommended to establish the sensitivity and specificity of this measure.

### **Limitations**

Although an important strength of the study was the nationally representative large sample size, it must be understood that a large sample size may also cause hindrance to significance tests. For instance, in a chi-square test, even a small difference might lead to significance and likewise in correlation coefficients, a large sample size would make it easy to achieve significance. Hence, it is recommended that an analysis on a subset of sample must be carried out in future to achieve further validity.

Another weakness lies in the GHQ-12 itself. All self-report questionnaires are prone to method variance, namely the tendency for people to respond the same way to similarly worded items. This may contribute to the aggregation of responses to positively and negatively worded items. This would require testing whether the 'positive' items on the GHQ-12 do indeed correlate with items of positive mental health or positive emotionality on other personality scales.

With regard to data values missing at random, demographics differences were only analysed. However, it is important to consider if the missing values are completely missing at random or whether the probability that a certain item missing has any relationship with other related variables. For example, people who are very depressed might be less inclined to report the GHQ-12 items, thereby leading to biasness in the estimates. It is recommended that in future such missing value analysis must be incorporated.

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**Appendix I**

Table 3: Anti-image correlation matrix

	GHQ1	GHQ2	GHQ3	GHQ4	GHQ5	GHQ6	GHQ7	GHQ8	GHQ9	GHQ10	GHQ11	GHQ12
GHQ1	.915 <sup>a</sup>											
GHQ2		.911 <sup>a</sup>										
GHQ3			.888 <sup>a</sup>									
GHQ4				.897 <sup>a</sup>								
GHQ5					.879 <sup>a</sup>							
GHQ6						.947 <sup>a</sup>						
GHQ7							.918 <sup>a</sup>					
GHQ8								.929 <sup>a</sup>				
GHQ9									.901 <sup>a</sup>			
GHQ10										.906 <sup>a</sup>		
GHQ11											.911 <sup>a</sup>	
GHQ12												.934 <sup>a</sup>

Table 5. Residual analysis

GHQ1											
GHQ2	0.031										
GHQ3	-0.022	0.023									
GHQ4	-0.045	0.014	-0.013								
GHQ5	0.021	-0.026	0.01	0.011							
GHQ6	0.003	-0.093	0.011	0.006	-0.062						
GHQ7	-0.039	0.018	-0.033	-0.039	0.012	-0.001					
GHQ8	-0.059	-0.002	-0.037	-0.021	0.007	0.012	-0.023				
GHQ9	0.001	-0.046	-0.001	-0.01	-0.015	-0.072	0.005	-0.003			
GHQ10	-0.022	-0.086	-0.015	-0.006	-0.074	-0.036	-0.027	-0.02	-0.028		
GHQ11	-0.032	-0.092	-0.025	-0.01	-0.093	-0.054	-0.036	-0.015	-0.051	0.043	
GHQ12	-0.036	-0.001	-0.027	-0.035	0.005	-0.013	0.001	-0.013	0.007	-0.02	-0.012

Table i. Correlation matrix of the GHQ-12 items

	GHQ 1	GHQ2	GHQ 3	GHQ 4	GHQ5	GHQ6	GHQ7	GHQ8	GHQ9	GHQ 10	GHQ 11	GHQ 12
GHQ1	1											
GHQ2	0.227	1										
GHQ3	0.514	0.216	1									
GHQ4	0.456	0.216	0.552	1								
GHQ5	0.231	0.661	0.212	0.232	1							
GHQ6	0.19	0.462	0.207	0.212	0.531	1						
GHQ7	0.468	0.295	0.492	0.48	0.308	0.261	1					
GHQ8	0.386	0.253	0.445	0.495	0.292	0.278	0.495	1				
GHQ9	0.259	0.627	0.258	0.256	0.704	0.511	0.357	0.332	1			
GHQ10	0.268	0.485	0.283	0.317	0.533	0.49	0.333	0.332	0.61	1		
GHQ11	0.224	0.436	0.236	0.28	0.463	0.425	0.286	0.312	0.528	0.612	1	
GHQ12	0.395	0.312	0.424	0.408	0.348	0.277	0.527	0.46	0.403	0.358	0.349	1

Table ii. Unrotated factor solution

	Factor 1
GHQ1	.564
GHQ2	.672
GHQ3	.593
GHQ4	.603
GHQ5	.717
GHQ6	.620
GHQ7	.663
GHQ8	.633
GHQ9	.761
GHQ10	.727
GHQ11	.663
GHQ12	.663

Table iii. Eigen values of the corresponding factors

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
Factor 1	5.210	43.414	43.414	5.210	43.414	43.414
Factor 2	1.878	15.649	59.063	1.878	15.649	59.063
Factor 3	.713	5.943	65.007			
Factor 4	.663	5.525	70.532			
Factor 5	.605	5.039	75.571			
Factor 6	.547	4.561	80.132			
Factor 7	.492	4.098	84.230			

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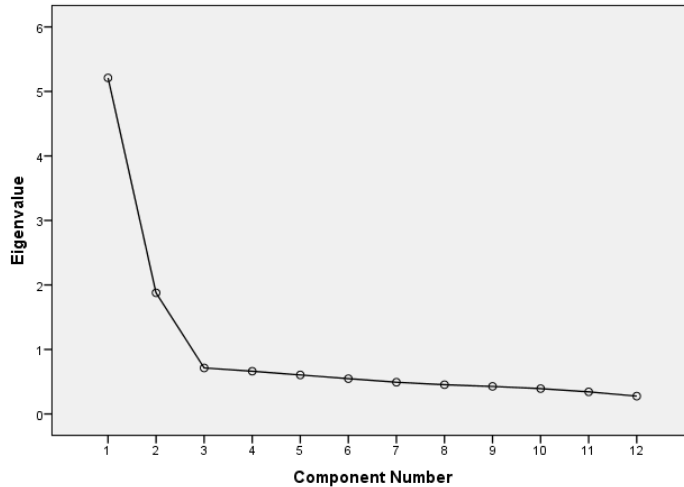
Factor 8	.453	3.776	88.006
Factor 9	.427	3.557	91.564
Factor 10	.393	3.276	94.839
Factor 11	.343	2.858	97.697
Factor 12	.276	2.303	100.000

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Extraction Method: Principal Component Analysis.

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Graph i. Scree plot



*Factorial validity and Reliability of GHQ*

Table iv. Varimax orthogonal rotated solution of the factors  
By gender

	Male (n=3305)		Female (n=3556)	
	Facto1	Factor 2	Factor 1	Factor 2
GHQ1	.125	.722	.125	.722
GHQ2	.766	.123	.766	.123
GHQ3	.073	.782	.073	.782
GHQ4	.112	.766	.112	.766
GHQ5	.804	.119	.804	.119
GHQ6	.658	.106	.658	.106
GHQ7	.199	.738	.199	.738
GHQ8	.213	.699	.213	.699
GHQ9	.810	.192	.810	.192
GHQ10	.717	.245	.717	.245
GHQ11	.670	.208	.670	.208
GHQ12	.288	.629	.288	.629

By region

	Rural		Urban	
	Facto1	Factor 2	Factor 1	Factor 2
GHQ1	.124	.725	.085	.681
GHQ2	.776	.147	.772	.089
GHQ3	.103	.793	.080	.735
GHQ4	.141	.772	.083	.722
GHQ5	.827	.163	.827	.072
GHQ6	.712	.142	.667	.121
GHQ7	.235	.743	.232	.691
GHQ8	.260	.690	.122	.661
GHQ9	.834	.220	.807	.178
GHQ10	.745	.270	.713	.216
GHQ11	.695	.228	.628	.203
GHQ12	.332	.638	.295	.605

Table v. Total variance explained by corresponding factors  
ANOVA

	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
GHQ1	295.308	1	.389	6859	759.680	.000
GHQ2	2470.941	1	.453	6859	5457.533	0.000
GHQ3	207.229	1	.310	6859	667.785	.000
GHQ4	265.288	1	.326	6859	813.099	.000
GHQ5	2405.668	1	.419	6859	5746.584	0.000
GHQ6	1404.817	1	.527	6859	2666.346	0.000
GHQ7	382.327	1	.329	6859	1163.255	.000
GHQ8	348.017	1	.330	6859	1055.798	.000
GHQ9	2207.242	1	.378	6859	5834.512	0.000
GHQ10	1563.105	1	.421	6859	3715.447	0.000
GHQ11	1565.475	1	.482	6859	3248.873	0.000
GHQ12	330.643	1	.275	6859	1201.016	.000

Table vi. Cluster scores

Measures	Mean (n=6861)	Mean scores	
		Cluster 1 (n=5001)	Cluster 2 (n=1860)
GHQ1	2.21	2.24	1.77
GHQ2	2.25	2.62	1.27
GHQ3	2.14	2.25	1.86
GHQ4	2.12	2.24	1.80
GHQ5	2.19	2.56	1.23
GHQ6	2.1	2.38	1.37
GHQ7	2.09	2.24	1.71
GHQ8	2.05	2.20	1.69
GHQ9	2.27	2.62	1.35
GHQ10	2.3	2.60	1.52
GHQ11	2.38	2.68	1.60
GHQ12	2.07	2.21	1.71
GHQ score (0-36)	26.13	28.8386	18.8828