

Integration of Vernacular Culture & Religion Into the Foreign Language Curriculum Of Compulsory English: Possibilities and Prospects in the Local and Global Scenario

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ABSTRACT

This paper discovers the possibilities, practicabilityes and prospects of integrating local/ vernacular culture and religion into the curriculum of English language. A brief analysis of the foreign languages curricula of Pakistan and those of some

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processes at all levels, respect for rights and dissent, the independence of judiciary and politico-cultural pluralism. There is no contradiction between Islam and this essence of democracy”.

It is worth concluding this article with Ahmad’s conclusion, as follows. “ In the contemporary post – colonial history of the Muslim world, despotism and secularism or socialism has gone together, while Islamic resurgence and people’s freedoms and popular participation are complementary. Despite freedom from the colonial yoke, the Muslim Ummah (sic) is still struggling for its right –its democracy right-to freely develop its polity, society and economy in light of its own ideas, values and aspirations. It refuses to live under the dictate of concepts and models in conflict with faith, opposed to its values, distasteful to its history and repugnant to its traditions. If democracy means rights of people to self-determination and self-fulfillment, that is what Islam and Muslim people have been striving for, nothing more and nothing less”

eternal standards of right, truth and justice. In the U.S it has become a façade behind which the capitalist class and the special interest groups continue to rule and dominate its society. In a number of other countries including most of the Muslim world, narrow tribal –cum- class political along with the dominance of a political elite placed and backed by the Western powers have led to the establishment of one party dictatorships in the name of democracy.

Reflecting on this situation, the well-known Islamic intellectual and activist Khurshid Ahmad writing in the Muslim World (volume 90,number 1-2,2000) has the following to say: "Islam and the Muslim Ummah (sic) brook no sympathy for arbitrary and authoritarian rule. Whatever arbitrary power reigns is more a product of colonialization and Westernization, and not of Muslim ideals, history or contemporary aspirations. They regard the Western secular version of democracy alien to their principles, values and traditions. But they have their own concept and rich tradition of democracy and people's participation that ensures just rule, consultative

The western ideology places a great emphasis on the institution of democracy. Yet it is not an unmixed blessing and has seeds of its destruction from within. Democracy as developed in the West is based on the concept of popular sovereignty. There is no relevance to the eternal religious guidance and absolute moral values in matters of governance. As it evolved, it developed a variety of forms of self-government and political processes to determine the will of the people for running the affairs of the state. Although it has succeeded in developing several mechanisms for popular participation, but because of the absence of firm moral moorings, its standards of right and wrong have been subjected to the whims of the people. Consequently, it has resulted in decriminalization of major evil practices and moral sins exposing the human society to the tyrannies of moral relativism, the idiosyncrasies of majority rule, racial and class-based tensions, economic exploitation and erosion of all basics essential for the sustenance of human society. Emphasizing quantity and counting of hands it has replaced quality and

- **Risalah** رسالة or Prophethood. The real guiders for humanity are the Prophets of Allah. Others are fake.
- Guidance or Sharia'ah to make humans reconcile with themselves, free from sin, guilt, and fear.
- Rationality within and without the system. The Sharia'ah itself is the supreme embodiment of rationality, its implementation and system building to make it cohere with life and thus bring out procreativity, calls for reason analysis and systematization.
- Participatory vicegerency for all based on consultation (Shura), with trickle down decentralization of power.
- Respect for authority, love and concern for the citizens. The ruled-and the ruler concept, which gives rise to duality between the state and the civil society, is nonexistent.
- Multiplicity and pluralism in its fullest expression with the right of self-governance and separate laws.
- Universal state, a global brotherhood.

important, the implementation of the Islamic law is not exterior to the believers to be resisted or at best accepted with a grudge as the sovereign will of the ruler, but carried and adored by the collective conscience of the Muslim people—a conscience shaped by their reverence of the Qur'an and the Prophet's Sunnah.

Equally consequential is the fact that an Islamic citizen is productive individual who seeks to actualize his potential in the service of Allah. Good deeds flow from him because he yearns for felicity in the life to come. He listens to the cadence of life and harmonizes it with the sharia'ah—a civilizational undertaking that makes use of the human as well as natural resources. In pursuit of his objective, the individual does not find himself at variance with the state but facilitated by it since they serve the same God, the provident Himself. The synchronization is natural and not imposed.

In summation, we may say that the Islamic state embraces the following concepts:

- Tauhid **توحيد** (belief in one, unique, all powerful transcendent God).

govern themselves through their own laws and institutions and still be part of the Muslims ummah. The Islamic state undertakes to preserve the constitutive cultural units even against the, Muslims. This is not merely a doctrinal position but can be viewed in the Muslim practice over the centuries. That is why one can say that the plurality of laws within the same state is major development in human history, which only Islam and the Muslims could have accomplished.

Islamic state is thus not exterior to the sharia'ah but reflective of it, seeking to organize as well as animate life around the collective goal of human welfare and justice so that they can live in the eternal gaze of Allah free from sin (crime) and fear.

Nor has this state an adversarial relation with the civil society or for that matter the individual. The three move in concert with a rhythm that comes naturally with shared values and perceptions. The tension law between law and individual or the never-ending conflict between the societal good and the individual rights so often the case in secular. Societies is mostly nonexistent in an Islamic state, for the sharia'ah contrary to manmade laws, is held sacrosanct both be the state and its citizens. More

The God in Islam is neither particularistic nor redemptive but universal—the God (Allah) of the covenant in which the covenanters are the general mass of humanity who pledged themselves to serve Him in justice over the planet. A kind of a social contract by which Allah bonds Him-self to help humans if they helped Him. This help from Him to humanity is of four kinds: Prophethood, guidance (Sharia'ah), endowment of best human biology, rationality, & emotions, complementary environment with all the organic and inorganic resources to create a civilization enter-prise, and the Divine promise to intervene when needed. Put differently, the application of the sharia'ah is a joint venture between the Creator and the recreated, which exalts the latter to a status in accord with his splendid birth.

Thus, calling for a universal state based on the concept of human in which other people can be accommodated, even when they are not Muslims, is natural to its definition of man. Added to this, pluralism in Islam is not cosmetic but real in the sense that it recognizes people other than Islamic as separate identities worthy of respect, which can

To begin with, the Islamic state is neither based on ethnocentrism nor on nationalism. Islam views both as negative for they build up craters of hatred ready to explode in their narrow interests. Humans, says Islam, must not be defined in terms of race, language, geography, and history. For these are at best descriptive of men, instrumental to something but not desirable in themselves, especially when these elements of the human matrix become the organizing principles of society and state. In the case, both ethnocentrism and nationalism become a threat to Islam's universal claim.

"The opposition of *qawamiyyah* (قومية Nationalism) to the world –*ummah*" says Dr. Ismail Al Fruqi "will be the battle of the century".

Such being the essence of the conflict, Islam defines humans in terms of vicegerency –amoral, activist notion, which is constitutive of its humanism. A being who did not have to go through the scale of evolution to become human but born as such with the divine spark in him so that he could play his heroic role in the process of change toward a just world. This vision can only be fulfilled if social restructuring is effectuated away from nationalism and ethnocentrism, for the two are causative of conflict and discord among people.

but a creative exercise in building a luminous model that unfolds itself in the form of the tension between the Qur'an and the human situation, and how it eventually embraces the letter to release the upsurge of procreative energies.

In summation thus, if theocracy is life in puddle with reason gagged, Islam is a plunge in the stream of life, with reason uncollared to chart new territories.

In theocracy humans are for religion, in Islam religion is for humans. In theocracy, human intelligence is insulted by parceling out solutions while in Islam solutions are sought in the interplay of the Divine Word with human intelligence. In theocracy life is a tangle, suffocated by excremental manmade solutions, while in Islam it is emancipatory. In theocracy life is a condemnation to a blind fate, in Islam it is a joyous stretch as it moves on actualizing its potential, with God not pitched against humans. In theocracy nature is blind, unpredictable and unknown which can either be worshiped or viewed as a terrifying experience, while in Islam it is a gift from the High above- a sign of Allah – to be harnessed in man's comfort.

With such an obvious divergence between theocracy and Islam, one may still ask what makes an Islamic state different from other states.

Second, the Divine will is known, revealed to a credible medium and codified in the form of the Book free from adulteration.

Third, it is understandable unambiguous and needs no human arbitration between the text and the reader other than known principles of the art of reading and scholarship.

Fourth, the vicegerency in Islam is not particularistic belonging to a person or a class of people. Rather, it is shura-based and participatory.

Fifth, Islam believes in the finality of prophethood-that Muhammad ﷺ prophethood has ended- a pointer to the fact that humanity has mastered ability to perceive, reflect and synthesize the emergent facts of life with the Divine Word which, if they want, can sling them toward peace, harmony, perfection.

Sixth, other than the foundational principles of the Qur'an and the Prophet's life, which appropriates the former to concretize Islam and serves as a solid footing to build upon, the human enterprise is encouraged to actualize its potential beyond the past and the present.

Put differently, the prophetic realization of Islam is not an attempt to fossilize Islam in time and space

well as kingship that reduce God to an appendix. They are also against existence of the shrines reminiscent of the Greek oracles. The slide in people's morals worries them, and so does their idolatries of the self as opposed to the worship of one true God.

From the preceding, we can sift five distinguishing features of theocracy: **first** it should have a god or a pantheon of gods which need not be true, for they are created by the tribe and thus local, **second**, there is no clear-cut guidance originating from a transcendent, universal God, **third**, the shrine and its guardians are important in dispensing solutions to the people's problems, **fourth**, people are excluded from lawmaking, **fifth**, God or the god's representation is an exclusive privilege confined to a single person or a group of persons (guardians of the shrine or the subsequent clergy).

This being the profile of theocracy, one may ask if Islam is similar to it or if the Islamic governance is theocratic in its essence. For from it, Islam has laid theocracy to rest forever.

First, God in Islam is universal, the lord of the planets and everything in them.

our view, it will be fair to first define theocracy and then show where does it stand in regard to an Islamic state.

According to C. Ryder Smith: "any tribe or state that claims to be governed by a god or gods may be called a theocracy". Smith also says that theocracy is linked with henotheism in which a particular god belongs to a particular tribe. Whether it existed in purer form, he denies any "historical instance" of it. He though associates the developed form of theocracy with ancient Israel where it was practiced with three important organs: the existence of the shrines where people would go for solution to their problems, the guardians of the shrine who provided the answer on behalf of the gods. And the head of the tribe.

In this configuration, shrines enjoy an important place because of the origination of theocracy there. Smith attributes the coinage of the term theocracy to Flavius Josephus (CE 37-100) who using the analogy of aristocracy and democracy came up with the new name. It is, however, with the coming of the biblical Prophets that the abuses of theocracy were brought out. The Prophets are against the priestly class as

criteria must be given due consideration in the light of Qur'anic injunctions.

1. It should be only delegated to those who acknowledge the principles, on which the system of Khilafah خلافة is based, because it cannot be entrusted to persons who oppose it.
2. It should not entrusted to tyrants and those who are disobedient to Allah or known sinners but to God-conscious, considerate and righteous believers.
3. It should not be given to the foolish and ignorant but to the knowledgeable, wise and those who understand the state affairs and are capable of running it, mentally and physically.
4. It should be entrusted to the honest such as are worthy of these responsibilities.

Whether an Islamic state is a theocracy, the secularists won't discuss it, though they do create a studied impression that the two are identical. Added to this, no definition of theocracy is offered. Thus in

﴿ وَشَاوِرْهُمْ فِي الْأَمْرِ ﴾

Consult them in affairs (of moment)”

(Al Imran, 3:159).

Following this advice and lead, Khalifah Omar رضي الله عنه admonished:” There is no Khilafah without consultation” (Please refer to Kanzul Ommal, vol. 5,Hadith No. 2354).

Thus the practice of shura was the mechanism followed at all levels in the selection of political leadership by Muhammad صلى الله عليه وسلم and his followers. It was the Islamic community the selected the first four rightly guided Khulafa "خلفاء" although the method of selection and the process of approval differed. The essential principle was consent and confidence of the community and the accountability of those selected before the community. Even afterwards when the heredity rule crept in that violated this community right, a facade of bayaa "بيعة" or community's acceptance of rulers was still maintained. Sayyid Mawdudi (r) in his renowned treatise Khilafat wa Malookiat has described that in selecting or electing persons to positions of power the following four

i.e. Shariah as the Supreme Law. And secondly that the society must be governed by and in accordance with the will of the people. The people or the Ummah are the actual repository of Khilafah and those in authority must have the confidence and support of the Muslim population. In this context, Shariah provides a broad framework within which the people under the umbrella of Divine Guidance participate in developing a civil society and its institutions including various organs of the state.

The whole system of Islamic State from its inception to the selection of the head of the state and all those in positions power as well as its dealing must be conducted by shura, whether it is carried out directly or indirectly through selected or elected representatives. The Qur'an states:

﴿ وَأَمْرُهُمْ شُورَى بَيْنَهُمْ وَمِمَّا رَزَقْنَاهُمْ يُنْفِقُونَ ﴾

Their affairs are decided by consultations between them" (Al Shura 42:38).

Even the Prophet ﷺ although he was the recipient of direct guidance from the Supreme Allah, was commanded:

been delegated to those who run the affairs of believers. Moreover, the authority is bestowed not on any chosen person, family tribe, ethnicity, race or group of people but on all believers, men and women. The Qur'an states: Allah has promised to those among you who believe and work righteous deeds, that He will assuredly make them succeed (those who rule) and grant them vicegerency in the land just as He made those before them succeed others.

﴿وَعَدَ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَعَمِلُوا الصَّالِحَاتِ لَيَسْتَخْلِفَنَّهُمْ فِي الْأَرْضِ كَمَا اسْتَخْلَفَ الَّذِينَ مِنْ قَبْلِهِمْ وَلَيُمَكِّنَنَّ لَهُمْ دِينَهُمُ الَّذِي ارْتَضَى لَهُمْ وَلَيُبَدِّلَنَّهُمْ مِنْ بَعْدِ خَوْفِهِمْ أَمْنًا يَعْبُدُونَنِي لَا يُشْرِكُونَ بِي شَيْئًا وَمَنْ كَفَرَ بَعْدَ ذَلِكَ فَأُولَئِكَ هُمُ الْفَاسِقُونَ﴾

(Al Nur, 24: 55)

Therefore, the two cardinal principles of governance as laid down by the Qur'an are: first sovereignty belongs to Allah and second, the popular vicegerency belongs to all believers. Thus legitimacy in the Islamic political order comes first and foremost from accepting Allah as the Sovereign and His Law,

قِصَاصٌ فَمَنْ تَصَدَّقَ بِهِ فَهُوَ كَفَّارَةٌ لَهُ وَمَنْ لَّمْ يَحْكَمْ بِمَا أَنْزَلَ
اللَّهُ فَأُولَئِكَ هُمُ الظَّالِمُونَ (45) وَقَفَّيْنَا عَلَى آثَارِهِم بِعِيسَى ابْنِ
مَرْيَمَ مُصَدِّقًا لِمَا بَيْنَ يَدَيْهِ مِنَ التَّوْرَةِ وَآتَيْنَاهُ الْإِنْجِيلَ فِيهِ هُدًى
وَنُورٌ وَمُصَدِّقًا لِمَا بَيْنَ يَدَيْهِ مِنَ التَّوْرَةِ وَهُدًى وَمَوْعِظَةً لِّلْمُتَّقِينَ
(46) وَلِيَحْكُمَ أَهْلُ الْإِنْجِيلِ بِمَا أَنْزَلَ اللَّهُ فِيهِ وَمَنْ لَّمْ يَحْكَمْ
بِمَا أَنْزَلَ اللَّهُ فَأُولَئِكَ هُمُ الْفَاسِقُونَ ﴿٤٦﴾

(Al Maidah, 5:44-47)

The position of humankind is that of Allah's vicegerent (Khalifah), or Allah's representative on earth. The nature of this vicegerency (Khilafah) ^{خلافة} described in the Qur'an is as follows. Whatever capacities and abilities humans possess, they are bestowed upon them by Allah. Allah bestowed these gifts on humans so that using them and the will granted them by Allah, They follow and establish His will in their lives as His representatives and not as autonomous entities. This Khilafah has been entrusted on all those who accept Allah as their Lord and Sovereign. The concept is one of popular vicegerency, shared by all believers alike. This vicegerency also means that limited authority has

Him. This is the Right Way of life, but most men understand not.

﴿ إِنِ الْحُكْمُ إِلَّا لِلَّهِ أَمَرَ أَلَّا تَعْبُدُوا إِلَّا إِيَّاهُ ذَلِكَ الدِّينُ الْقِيمُ
(Yousuf 12:40) ﴾ وَلَكِنَّ أَكْثَرَ النَّاسِ لَا يَعْلَمُونَ

We have sent you the Book in Truth that you (O Prophet) might judge between men, as guided by Allah.

﴿ إِنَّا أَنْزَلْنَا إِلَيْكَ الْكِتَابَ بِالْحَقِّ لِتَحْكُمَ بَيْنَ النَّاسِ بِمَا أَرَاكَ اللَّهُ
(Al Nisa, 4:105) ﴾ وَلَا تَكُنْ لِلْخَائِنِينَ خَصِيمًا

If any fail to judge by (the light of) what Allah has revealed, they are (no better than) unbelievers ... the wrongdoers...those who rebel.

﴿ إِنَّا أَنْزَلْنَا التَّوْرَةَ فِيهَا هُدًى وَنُورٌ يَحْكُمُ بِهَا النَّبِيُّونَ الَّذِينَ
أَسْلَمُوا لِلَّذِينَ هَادُوا وَالرَّبَّانِيُّونَ وَالْأَحْبَارُ بِمَا اسْتَحْفَظُوا مِنْ
كِتَابِ اللَّهِ وَكَانُوا عَلَيْهِ شُهَدَاءَ فَلَا تَخْشَوُا النَّاسَ وَاخْشَوْا اللَّهَ وَلَا
تَشْتَرُوا بِآيَاتِي ثَمَنًا قَلِيلًا وَمَنْ لَمْ يَحْكَمْ بِمَا أَنْزَلَ اللَّهُ فَأُولَئِكَ هُمُ
الْكَافِرُونَ (44) وَكَتَبْنَا عَلَيْهِمْ فِيهَا أَنْ النَّفْسَ بِالنَّفْسِ وَالْعَيْنَ
بِالْعَيْنِ وَالْأَنْفَ بِالْأَنْفِ وَالْأُذُنَ بِالْأُذُنِ وَالسِّنَّ بِالسِّنِّ وَالْجُرُوحَ

whatever possesses any of these. Therefore, the sovereignty of the entire universe only belongs to Allah alone and none other than Him has a share in it.

Similarly, sovereignty over all of humankind rightfully belongs to Allah and no human or nonhuman power could control or decide any of the human affairs. The only difference between humans and others of Allah's creation is as follows. While in all of the universe and even in the autonomous part of human's own body His sovereignty is established automatically, it is the part that is granted autonomy by Allah where it is not forcibly established. It is rather established by inviting humankind to willingly submit themselves according to the course established by Him in the revealed scriptures. The Qur'an is very explicit on this: Is it not His to create and to govern?.

﴿أَلَا لَهُ الْخَلْقُ وَالْأَمْرُ تَبَارَكَ اللَّهُ رَبُّ الْعَالَمِينَ﴾

(Al Araf,7:54)

The Command is for none but Allah. He has commanded you not to surrender to anyone save

ISLAMIC GOVERNANCE AND THEOCRACY

By

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Allah is Sovereign. Islamic political system is based on its specific worldview that is essential to know in any understanding of Islam. The Qur'an tells us that Allah is the Creator and Lord of the whole universe including humankind and all that is associated with them. He is overpowering and is irresistibly dominant over all His creation. He knows all and governs all. He is ever living and everlasting and all His creation, willingly or unwillingly, is obedient to Him. Whatever He wills gets done. It is His power that is established and none can interfere in it in anyway. Thus it is Allah who possesses all the powers and attributes of sovereignty and none else

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16. Ayub, Allama Hafiz Muhammad. *Fitna-e-inkār-e-hadis*, Karachi: Maktaba-e-Rāzi
17. Ayub, Allama Hafiz Muhammad. *Khatm-e-Nubuwwat*, Karachi: Maktaba-e-Rāzi
18. Ayub, Allama Hafiz Muhammad. *Maqālāt-e-Ayyubi (Volume 1)*, Karachi: Maktaba-e-Rāzi.
19. Ayub, Allama Hafiz Muhammad. *Maqālāt-e-Ayyubi (Volume 3)*, Karachi: Maktaba-e-Rāzi.

References

1. Pratt, Ian (1994). *Artificial Intelligence*, London: The Macmillan Press Ltd.
2. Sharan, S.N.(1993). *Fundamentals of Expert Systems*, New Delhi: CBS Publishers & Distributors.
3. Kelly, John (1997). *The Essence of Logic*, New Delhi: Prentice-Hall of India (Private Limited)
4. Jeffrey, Richard (1989). *Formal Logic*, New York: McGraw-Hill International Editions.
5. Copi, Irving M. (1997). *Symbolic Logic*, New Delhi: Prentice-Hall of India (Private Limited)
6. Copi, Irving M. and Cohen, Carl (1997). *Introduction to Logic*, New Delhi: Prentice- Hall of India (Private Limited).
7. Kleene, Stephen Cole. *Mathematical Logic*, John Wiley & Sons Inc.
8. Mendelson, Elliott *Introduction to Mathematical Logic*, D. Van Nostrand
9. Davis, Ruth E. *Truth, Deduction & Computation*, Computer System Press
10. Lipschutz, Seymour (1982). *Essential Computer Mathematics*, New York: McGraw-Hill Books Company.
11. Rosenberg, Jerry M. (1984). *Dictionary of Computers, Data Processing and Telecommunications*, New Delhi. Wiley Eastern Limited.
12. Daintith, John and Nelson, R.D (1989). *Dictionary of Mathematics*, London: Penguin Books.
13. Raja Gopalan, R. (1987). *Understanding Computers*, New Delhi, Tata McGraw-Hill Publishing Company Limited .
14. Lipschutz, Seymour (1981). *Set theory*, Singapore: McGraw-Hill International Books Company.
15. Rosen, Kenneth H. (2000). *Discrete Mathematics and Its Applications*, Singapore: McGraw-Hill International Edition.

$$\exists u \forall v \forall x \exists y p(f(u), v, x, y) \rightarrow q(u, v, y)$$

the existentially quantified variable u is not within the scope of the universally quantified variable, v , and x , and hence the function $f(u)$ can be replaced by $f(a)$ with “ a ” being a constant, and the existential quantifier $\exists u$ is removed from this expression. Thus the new expression after this type of skolemization is,

$$\forall v \forall x \exists y p(f(a), v, x, y) \Rightarrow q(a, v, y)$$

Having understood what is skolemization and applying this algorithm to the expression (3), the skolemized expression becomes as,

$$\forall y (\sim a(f(a), y, g(y)) \vee (b(a, h(y)) \wedge c(y) k(y)))$$

Step 5: Remove all universal quantifiers, since the universally quantified variables are implicitly retained in the expression.

In the event of this step the above expression may now be written as

$$(\sim a(f(a), y, g(y)) \vee (b(a, h(y)) \wedge c(y), k(y)))$$

Step 4: Purge existential quantifiers. All existentially quantified variables should be replaced by skolem functions, and the corresponding existential quantifiers should be removed.

The skolemization may be understood as follows. If there are existential quantifiers

which are preceded by one or more universal quantifiers, i.e. the existential

quantifiers are within the scope of universal quantifiers then replace all the

existentially quantified variable by a function symbol not appearing anywhere in

the expression. For example, in the expression

$$\forall v \forall x \exists y p(v, x, y) \rightarrow q(v, y)$$

the existential quantifier $\exists y$ is within the scope of the universal quantifiers $\forall v$ and

$\forall x$, so according to this algorithm, the skolemized expression is

$$\forall v \forall x p(v, x, g(v, x)) \rightarrow q(v, h(v, x))$$

This expression is obtained by replacing variable y , which is existentially quantified

by operator $\exists y$ in the earlier expression, by the function $g(v, x)$ in left hand side and

by $h(v, x)$ in the right hand side of the expression.

Another type of skolemization is that if the existential quantifier does not come

within the scope of the universal quantifier then there will not be any functional

dependency of existentially quantified variable on universally quantified variable,

and hence the existentially quantified variable can be replaced by a constant symbol.

For example, in the following expression

$(\forall x) (\text{soul}(x) \rightarrow \text{mortal}(x))$

$(\forall x) (\exists y) (\text{likes}(x,y))$

are in prenex form where as

$(\forall x)(\text{father}(x) \rightarrow (\exists y)(\text{son}(y) \wedge \text{loves}(x,y)))$

is not)

- Step 2: Drive in all negations immediately before an atom. Use for this purpose $\neg p$ instead of $(\neg p)$ and also use De Morgan's law, i.e., $(\exists x) \neg p(x)$ in place of $\neg(\forall x) p(x)$ and $(\forall x) \neg p(x)$ in place of $\neg(\exists x) p(x)$.

Using these algorithms the expression

$\exists x \forall y (\sim \forall z a(f(x), y, z) \forall (\exists u b(x, u) \wedge \exists v c(y, v)))$

is modified as

$\exists x \forall y (\exists z) \sim a(f(x), y, z) \vee (\exists u b(x, u) \wedge \exists v c(y, v))$

- Step 3: Rename variables, if necessary, so that all quantifiers have different variable assignments. It should be noted here that the renaming will not change the meaning of the formula because these variables just act as dummies for the corresponding quantifiers.

If we have an expression like

$\forall x (\sim p(x)) \vee (\exists y) (q(x, y)) \wedge (\forall x) p(x) \vee (\forall y) (\sim q(x, y))$

then according to the algorithm of step 3, $\forall x$ quantifier which is in the left most position is retained as it is whereas $(\forall x) (p(x) \vee (\forall y) (\sim q(x, y)))$ is replaced by the expression $(\forall z) (p(z) \vee (\forall w) (\sim q(z, w)))$.

28. RESOLUTION IN PREDICATE LOGIC

The resolution method in predicate logic precedes much as for the propositional logic. Again the stages are:

1. Form the conflict set (premises + negation of conclusion)
2. Convert the conflict set to a set of formulae in clause form
3. Repeatedly apply the *resolution rule* to try to derive a contradiction.
4. If a contradiction is found then the argument is valid.

But there are following two additional tasks that are needed to perform during the resolution procedure.

1. Eliminating existential quantifier and replacing the corresponding variable by either a constant (called a *Skolem constant*) or a function (called a *Skolem function*). This process is called *Skolemization*
2. The resolution rule "step 3", when modified to handle clause form formulae containing variables, requires an extra operation called "unification".

The steps for converting a given sentence into clause form may be described as follows:

Step 1: Convert to *prenex form*

(Note: a formula in the predicate logic in which all the quantifiers are at the front (i.e. have the whole formula within their scope) is said to be in *prenex form*. For example.

property that the subject of the statement can have. We can denote the propositional function “x is sahabī” by sahabī (x). In logic this claim is written in short as “sahābī” and is known as “predicate” where as x is known as object and sahabī(x) is known as the predicate function. We can replace x with any element that belongs to the domain set A. If we replace x with Hazrat Abu Bakr i.e. Sahābī (Hazrat Abu Bakr) then it becomes a statement and the statement is true. On the other hand, if we replace x with Hazrat Umar-bin-Abdul Abu then the statement Sahābī(Hazrat Umar-bin-Abdul Aziz) is a false statement. The open sentence “Zarrar is a male” can be written in predicate form as male(zarrar).

Similarly, an open sentence with two or three variables can be written in predicate form as:

- i. offers (hanzala, prayer)
i.e., Hanzala offers prayer
- ii. keeps (khawla, fast)
i.e., Khawla keeps fast
- iii. obeys (fārābī, allah)
i.e., Fārābī obeys Allah
- iv. muallim (talha, saeed, waqas)
i.e., Talha is the muallim of Saeed and Waqas, etc.

If we want to write “all of the members of the set B is a sahabī” in predicate form then we have to use universal quantifier. The statement will be:

$$(\forall x \in B) (\text{sahābī} (x))$$

Similarly, if we want to write “Some of the members of the set B is ashra-e-mubashshirah”, then the statement will be:

$$(\exists x \in B) (\text{ashra-e-mubashshirah} (x))$$

- p: It is a month of Ramazan
- q: Fast is obligatory on 'A'
- r: 'A' keeps fast
- s: 'A' is sick

To apply the resolution procedure, we perform the following:

1. The conflict set of this argument is:
 $\{p \rightarrow q, (q \wedge \sim s) \rightarrow r, p, \sim s, \sim r\}$
2. Since $p \rightarrow q$ is equivalent to $\sim p \vee q$ and $(q \wedge \sim s) \rightarrow r$ is equivalent to $\sim q \vee s \vee r$, so the conflict set in clause form is:
 $\{\sim p \vee q, \sim q \vee s \vee r, p, \sim s, \sim r\}$
3. We then apply resolution to derive a contradiction:

i.	$\sim p \vee q$	Conflict Set
ii.	$\sim q \vee s \vee r$	
iii.	p	
iv.	$\sim s$	
v.	$\sim r$	
vi.	$\sim q \vee s$	From 2 and 5 by resolution
vii.	$\sim q$	From 4 and 6 by resolution
viii.	$\sim p$	From 1 and 7 by resolution
ix.	Contradiction	From 3 and 8 by resolution

4. We have found a contradiction in the conflict set, and so the argument is valid.

27. PREDICATE

The propositional function (explained in section 22)

$p(x)$: x is sahabī

has two parts. The first part, the variable x, is the subject of the propositional function. The second part - the claim "is sahabī"- refers to a

26. RESOLUTION IN PROPOSITIONAL LOGIC

A proof theory is a technique for establishing the validity of arguments. Although, two methods are already discussed, the third one, given below, is the most efficient

This method is as follows:

1. Form the *conflict set* (premises + negation of conclusion)
2. Convert the conflict set to a set of formulae in *clause form*
 (Note: A *literal* is a proposition letter or a proposition letter prefixed by \sim .
 Thus $b, c, \sim d$ are all literals; $a \vee b, a \wedge b$ and $\sim \sim a$ are not literal.
 A formula is in clause form if it is a literal or a collection of literals all joined by \vee .
 Thus $\sim p, p \vee q, \sim p \vee \sim q \vee r$ are all in clause form; $p \wedge q, p \rightarrow q$ and $\sim \sim p$ are not.)
3. Repeatedly apply the *resolution rule* described below to try to derive a contradiction.
4. If a contradiction is found then the argument is valid.

Consider the following argument:

If it is a month of Ramazan then fast is obligatory on 'A'

If fast is obligatory on 'A' and 'A' is not sick then 'A' keeps fast

It is a month of Ramazan

'A' is not sick

Therefore 'A' keeps fast

Symbolically

$p \rightarrow q, (q \wedge \sim s) \rightarrow r, p, \sim s \vdash r$
 where

Furthermore, if $p(x)$ denotes “ x is mortal”, then the above can be written as:

$$\sim(\forall x \in S) p(x) \equiv (\exists x \in S) \sim p(x)$$

Whatever be the proposition $p(x)$ the above relation is true i.e. “it is not true that for all x belongs to S , $p(x)$ is true” is equivalent to “for some x belongs to S , the negation of $p(x)$ is true”.

Similarly

$$\sim(\exists x \in S) p(x) \equiv (\forall x \in S) \sim p(x)$$

is true in general i.e.

“It is not true that for some x belongs to S , $p(x)$ is true” is equivalent to “for all x belongs to S , the negation of $p(x)$ is true”

25. TRUTH VALUE OF PROPOSITIONS WHICH CONTAIN QUANTIFIERS

Whenever we want to find the truth value of a statement consisting quantifier, our approach is according to the following:

1. If the statement consists universal quantifier, then we try to find at least one value belongs to the domain set that makes the statement false. That particular value is the counter example. If there exists a counter example then the statement is false. The statement is true only when there is no counter example e.g. let $p(x)$ be a propositional function whose domain set is A . Let for $x=a$ the statement $(\forall x \in A) p(x)$ is false then ‘ a ’ is a counter example
2. If the statement consists existential quantifier, then we try to find at least one value belongs to the domain set that makes the statement true. If such a value exists then the statement is true. The statement is false only if there is no such value that makes the statement true.

ii. $(\exists x \in B) p(x)$ is also a true statement since

$T_p = \{x/ x \in B, p(x)\} = \{ \text{Hazrat Abu Bakr, Hazrat Umar, Hazrat Usmān, Hazrat Alī, Hazrat Khalīd-bin-Waleed} \} \neq \phi$

iii. $(\forall x \in B) q(x)$ is a false statement since

$T_q = \{x/ x \in B, q(x)\} = \{ \text{Hazrat Abu Bakr, Hazrat Umar, Hazrat Usmān, Hazrat Alī} \} \neq B$

where as

$(\exists x \in B) q(x)$ is a true statement since

$T_q = \{x/ x \in B, q(x)\} = \{ \text{Hazrat Abu Bakr, Hazrat Umar, Hazrat Usmān, Hazrat Alī} \} \neq \phi$

$(\forall x \in B) r(x)$ is a false statement since

$T_r = \phi \neq A$

Similarly

$(\exists x \in B) r(x)$ is also a false statement since

$T_r = \phi$

24. NEGATION OF PROPOSITIONS WHICH CONTAIN QUANTIFIERS

Consider the Ayat *Every soul will taste of death* (*Āl-e-Imrān: 185*) i.e., “every soul is mortal” which is a proposition. The negation of this proposition is “it is not true that every soul is mortal”; in other words, there exists at least one soul who is not mortal. Symbolically, then, if S denotes the set of souls, then the negation of the proposition can be written as:

$\sim(\forall x \in S)(x \text{ is mortal}) \equiv (\exists x \in S)(x \text{ is not mortal})$

which reads “For all” or “For every” is called the universal quantifier. Notice that $(\forall x \in A) p(x)$ or $\forall x, p(x)$ is equivalent to the set theoretic statement that the truth set of $p(x)$ is the entire set A , that is,

$$T_p = \{x/x \in A, p(x)\} = A$$

Similarly

$$(\exists x \in A) p(x) \text{ or simply } \exists x, p(x)$$

is a statement which reads “There exists an element x belongs to set A such that $p(x)$ is a true statement or simply “For some x , $p(x)$ ”.

The symbol

$$\exists$$

which reads “There exists” or “For some” or “For at least one” is called the existential quantifier. Notice that $(\exists x \in A) p(x)$ or $\exists x, p(x)$ is equivalent to the set-theoretic statement that the truth set of $p(x)$ is not empty, that is

$$T_p = \{x/x \in A, p(x)\} \neq \phi$$

Consider

$B = \{ \text{Hazrat Abu Bakr, Hazrat Umar, Hazrat Usmān, Hazrat Alī, Hazrat Khalīd-bin-Waleed} \}$

with three propositional functions

- iv. $p(x)$: x is saḥābī
- v. $q(x)$: x is ashra-e-mubashshirah
- vi. $r(x)$: x is died in 20th century

where $x \in B$

once again then

- i. $(\forall x \in B) p(x)$ is a true statement since
 $T_p = \{x/ x \in B, p(x)\} = \{ \text{Hazrat Abu Bakr, Hazrat Umar, Hazrat Usmān, Hazrat Alī, Hazrat Khalīd-bin-Waleed} \} = B$

Similarly

$B = \{\text{Hazrat Abu Bakr, Hazrat Umar, Hazrat Usmān, Hazrat Alī, Hazrat Khalīd-bin-Walced}\}$

with three propositional functions

- i. $p(x)$: x is saḥābī
- ii. $q(x)$: x is ashra-e-mubashshirah
- iii. $r(x)$: x is died in 20th century

where $x \in B$

Here

$p(x)$ is true for all $x \in B$ i.e. the truth set of $p(x)$ is the set B

$q(x)$ is true for some $x \in B$ and the truth set of $q(x)$ is:

$\{\text{Hazrat Abu Bakr, Hazrat Umar, Hazrat Usmān, Hazrat Alī}\}$

$r(x)$ is false for all $x \in B$ so its truth set is ϕ

Notice, by the preceding example, that a propositional function defined on a set B could be true for all $x \in B$, for some $x \in B$ or for no $x \in B$

23. QUANTIFIER

Let $p(x)$ be a propositional function on a set A , then

$(\forall x \in A) p(x)$ or simply $\forall x, p(x)$

is a statement which reads “For every element x belongs to set A . $p(x)$ is a true statement”, or simply “For all x , $p(x)$ ”.

The symbol

\forall

- r)] iii. $x = \text{Hazrat Usmān}$
 iv. $x = \text{Hazrat Alī}$
 (since each of the first four is saḥābī)

Where as it is false for

- $x = \text{Hazrat Umar-bin-Abdul Azīz}$
 (since Hazrat Umar-bin-Abdul Azīz is not a saḥābī)

Comparing $p(x)$ with the tree diagram given in section #3, we observe that the sentence is

- i. Clear
 ii. Certain
 iii. Complete
 iv. Mathematical
 v. Open

Moreover, it consists a mathematical variable x therefore $p(x)$ is a propositional function (or an open sentence)

The set A is called the “domain” or “replacement set”.

The set $\{\text{Hazrat Abu Bakr, Hazrat Umar, Hazrat Usmān, Hazrat Alī}\}$ which is the set of all replacements that changes the propositional function into true sentences is called the solution set or the truth set i.e., if $p(x)$ is a propositional function on a set A , then the set of elements $a \in A$ with the property that $p(a)$ is true is called the truth set T_p of $p(x)$.

In other words,

$$T_p = \{x/x \in A, p(x) \text{ is true}\}$$

or, simply

$$T_p = \{x/p(x)\}$$

Notice that a statement consist a truth value (true or false) while a propositional function consists a truth set.

Now consider another set

9. Exportation (Exp.):

$$[(p \wedge q) \rightarrow r] \equiv [p \rightarrow (q \rightarrow r)]$$

10. Tautology (Taut.):

$$p \equiv (p \vee p).$$

$$p \equiv (p \wedge p).$$

21. PLAYFULLNESS

Atheists some time ask the following type questions to confuse muslims.

“If Allah is Omnipotent then whether He can create a stone that He cannot hold?” suppose the question is asked to a person X(not necessarily a muslim). Now suppose according to X, Allah is not Omnipotent, i.e. according to his faith, Allah have not got power over all things and have not absolute control over all affairs. So whatever be the answer of X, it is against the faith of a muslim. But if X is a muslim then according to him, Allah is Omnipotent, i.e. according to him, Allah have power over all things and have absolute control over all affairs. So according to his faith, Allah can create any kind of stone and he can hold any kind of stone. The conjunction of the three statements, i.e. “Allah is Omnipotent and he can create a stone and he can not hold it” is a contradiction. Similarly “Allah is Omnipotent and he cannot create the stone” is also a contradiction. The only true conjunction is “ Allah is Omnipotent and he can create the stone and he can hold it.”

22. PROPOSITIONAL FUNCTION

Let

$\Lambda = \{\text{Hazrat Abu Bakr, Hazrat Umar, Hazrat Usmān, Hazrat Alī, Hazrat Umar bin-Abdul Azīz}\}$

For $x \in \Lambda$, consider the following sentence

$p(x)$: x is saḥābī

Now $p(x)$ is true for

- i. $x = \text{Hazrat Abu Bakr}$
- ii. $x = \text{Hazrat Umar}$

20. THE RULES OF REPLACEMENT

There are many valid truth-functional arguments that cannot be proved valid using only the nine Rules of Inference that have been given thus far. For example, a formal proof of validity for the obviously valid argument

$$\begin{array}{c} p \wedge q \\ \therefore q \end{array}$$

requires additional Rules of Inference.

Now the only compound statements that concern us here are truth-functional compound statements. Hence if any part of a compound statement is replaced by an expression that is logically equivalent to the part replaced, the truth value of the resulting statement is the same as that of the original statement. This is sometimes called the Rule of Replacement and sometimes the Principle of Extensionality.

Any of the following logically equivalent expressions can replace each other wherever they occur:

1. De Morgan's Theorem (De M.): $\sim(p \wedge q) \equiv (\sim p \vee \sim q)$.
 $\sim(p \vee q) \equiv (\sim p \wedge \sim q)$.
2. Commutation (Com.): $(p \vee q) \equiv (q \vee p)$.
 $(p \wedge q) \equiv (q \wedge p)$.
3. Association (Assoc.): $[p \vee (q \vee r)] \equiv [(p \vee q) \vee r]$.
 $[p \wedge (q \wedge r)] \equiv [(p \wedge q) \wedge r]$.
4. Distribution (Dist.): $[p \wedge (q \vee r)] \equiv [(p \wedge q) \vee (p \wedge r)]$.
 $[p \vee (q \wedge r)] \equiv [(p \vee q) \wedge (p \vee r)]$.
5. Double Negation (D.N.): $p \equiv \sim\sim p$.
6. Transposition (Trans.): $(p \rightarrow q) \equiv (\sim q \rightarrow \sim p)$.
7. Material Implication (Impl.): $(p \rightarrow q) \equiv (\sim p \vee q)$.
8. Material Equivalence (Equiv.): $(p \equiv q) \equiv [(p \rightarrow q) \wedge (q \rightarrow p)]$.
 $(p \equiv q) \equiv [(p \wedge q) \vee (\sim p \wedge \sim q)]$.

Rules of Inference

1. *Modus Ponens* (M.P.)

$$\begin{array}{l} p \rightarrow q \\ p \\ \therefore q \end{array}$$

2. *Modus Tollens* (M.T.)

$$\begin{array}{l} p \rightarrow q \\ \neg q \\ \therefore \neg p \end{array}$$

3. *Hypothetical Syllogism* (H.S.)
(D.S.)

$$\begin{array}{l} p \rightarrow q \\ q \rightarrow r \\ \therefore p \rightarrow r \end{array}$$

4. *Disjunctive Syllogism*

$$\begin{array}{l} p \vee q \\ \neg p \\ \therefore q \end{array}$$

5. *Constructive Dilemma* (C.D.)

$$\begin{array}{l} (p \rightarrow q) \wedge (r \rightarrow s) \\ p \vee r \\ \therefore q \vee s \end{array}$$

6. *Absorption* (Abs)

$$\begin{array}{l} p \rightarrow q \\ \therefore p \rightarrow (p \wedge q) \end{array}$$

7. *Simplification* (Simp.)

$$\begin{array}{l} p \wedge q \\ \therefore p \end{array}$$

8. *Conjunction* (Conj.)

$$\begin{array}{l} p \\ q \\ \therefore p \wedge q \end{array}$$

9. *Addition* (Add.)

$$\begin{array}{l} p \\ \therefore p \vee q \end{array}$$

These nine Rules on Inference are elementary valid argument forms, whose validity is easily established by truth tables. They can be used to construct formal proofs of validity for a wide range of more complicated arguments. The names listed are standard for the most part, and the use of their abbreviations permits formal proofs to be set down with a minimum of writing.

19. THE RULES OF INFERENCE

A *formal proof of validity* for a given argument is defined to be a sequence of statements, each of which is either a premise of that argument or follows from preceding statements by an elementary valid argument, and such that the last statement in the sequence is the conclusion of the argument whose validity is being proved. This definition must be completed and made definite by specifying what is to count as an 'elementary valid argument'. We first define an *elementary valid argument* as any argument that is a substitution instance of an elementary valid argument form. Then, we present a list of just nine argument forms that are sufficiently obvious to be regarded as elementary valid argument forms and accepted as Rules of Inference.

One matter to be emphasized is that any substitution instance of an elementary valid argument form is an elementary valid argument. Thus the argument

$$\begin{array}{l} \sim r \rightarrow (s \rightarrow t) \\ \sim r \\ \therefore s \rightarrow t \end{array}$$

is an elementary valid argument because it is a substitution instance of the elementary valid argument form *Modus Ponens* (M.P.). It results from

$$\begin{array}{l} p \rightarrow q \\ p \\ \therefore q \end{array}$$

by substituting $\sim r$ for p and $s \rightarrow t$ for q ; therefore, it is of that form even though *Modus Ponens* is not the *specific form* of the given argument.

Following is a list of nine elementary valid argument forms that can be used in constructing formal proofs of validity:

$$p \wedge q \vdash p$$

is known as *Simplification* (Simp)

Argument #12

Five times prayer is obligatory on a muslim

Fasting during the month of Ramazan is obligatory on a muslim

Therefore five times prayer is obligatory on a muslim and fasting during the month of Ramazan is obligatory on a muslim

Symbolically

$$p, q \vdash p \wedge q$$

Where

p: Five times prayer is obligatory on a muslim

q: Fasting during the month of Ramazan is obligatory on a muslim

The argument of the type

$$p, q \vdash p \wedge q$$

is known as *Conjunction* (Conj)

Argument #13

Hazrat Abu Bakr is muslim's Caliph

Therefore Hazrat Abu Bakr is muslim's Caliph or he was the governor of Iraq

Symbolically

$$p \vdash p \vee q$$

Where

p: Hazrat Abu Bakr is muslim's Caliph

q: Hazrat Abu Bakr was the governor of Iraq

The argument of the type

$$p, q \vdash p \vee q$$

is known as *Addition*(Add)

r: Deed 'B' is prohibited by Allah

s: Deed 'B' is unlawful

The argument of the type

$p \rightarrow q \wedge r \rightarrow s, p \vee r \vdash q \vee s$

is known as *Constructive Dilemma* (C.D)

Argument #10

If innovation in religion takes place somewhere then the difference of opinion exists there

Therefore if innovation in religion takes place somewhere then innovation in religion takes place somewhere and the difference of opinion exists there

Symbolically

$p \rightarrow q \vdash p \rightarrow (p \wedge q)$

Where

p: Innovation in religion takes place somewhere

q: The difference of opinion exists there

The argument of the type

$p \rightarrow q \vdash p \rightarrow (p \wedge q)$

is known as *Absorption* (Abs)

Argument #11

No one is deity except Allah and Muhammad (SA) is the messenger of Him

Therefore no one is deity except Allah

Symbolically

$p \wedge q \vdash p$

Where

p: No one is deity except Allah

q: Muhammad (SA) is the messenger of Him

The argument of the type