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HAKIM TIRMIDH'S DOCTRINE OF WILAYAH

Hasan Qasim Murad

The present paper on Ḥakīm Tirmidhī, the well-known Khurāsānī mystic of the third century of Hijrah, aims at inquiring into his ideas concerning wilāyah which, if not the most fundamental single aspect of his thought, was definitely the most significant one and later on came to typify him.[1] This is, by no means, a comprehensive study of Tirmidhī's doctrine of wilāyah in all its aspects. In fact, this is only an attempt to "reconstruct" his probable idea regarding wilāyah on the basis of scraps and patches of information available in certain old and new sources, by comparing and cross-checking the internal evidences found therein.[2]

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[1] Despite the rich variety of Tirmidhī's thought, which can be verified by looking at the diverse subjects of his several works, Hujwīrī singled out his doctrine of wilāyah and typified him with it in a lengthy discourse on Ḥakīmīs, the Sufi school founded, according to him, by Tirmidhī. See the following note.

[2] The sources for this discussion are, besides Tirmidhī himself, some of whose quotations regarding wilāyah are found in certain old and now writers, Hujwīrī, `Attar and Ibn `Arabi (on the authority of Massignon, Essai Sur les Origines du lexique de la mystique musulmane, Paris, 1922, and Arberry and `Abd al-Qādir who have discussed this 'problem in their introduction to Tirmidhī's Kitāb al-Riyāḍah wa Adab al-Nafs. Cairo, 947, and have also given a brief summary of Tirmidhī's Kitāb Khatm al- Awliyā' Though some reference was made to this problem by Sulamī, as Dhahabī (Tadhkirat ai-Ḥufʿāẓ [Hyderabad, 1956], II, 645), and Subkī (Ṭabaqāt al-Shāf 'iyyah [Cairo, n d.], II, 20) inform, but Hujwīrī was the first to discuss it in full. Talking about the doctrines held by Ḥakīmīs, Hujwīrī gives a lengthy discourse on wilāyah and very scrupulously tries to give the whole credit of ideas contained in it to Tirmidhī's (Kash al-Maḥjūb, tr. RA. Nicholson [Leiden, 1911], pp. 210-41). But it is open to very serious doubt whether all the ideas contained in it really belong to Tirmidhī. Some of them, however, can be verified by cross-checking with other sources. Almost the same is the case with lbn `Arabī who, besides preserving and answering the famous 155 questions raised by Tirmidhī in his Kitāb) Khatm al-Awliyā' (Massignon, op. cit., pp. 259-62), has probably benefited from Tirmidhī and has used his ideas as the basis for developing his own particular ideas about wilāyah (Arberry and Qadir, Eds., op. cit., p 20). It is very difficult to find out what in it is Ibn `Arabī's own and what belongs to Tirmidhī. The two works by `Uthmān Yaḥyā entitled Loeuvre de Tirmidhī, Damascus, 1957, and Kitāb Khatm al-Awliyā' li Tirmidhī (Beirut, 1960), which contain brief descriptions of, and quotations from, Tirmidhī's works, and `Uthmān Yaḥyā's analysis of the contents of Kitāb Khātm al-Awliyā' in Annuaire 1960-61 de l'Ecole Pratique des Hautes-Etudes, Section des Sciences Religieuses

No attempt will be made to establish the originality or otherwise of Tirmidhī's doctrines about wilāyah by investigating the origin of the word and concept of wilayah, or by comparing Tirmidhī's ideas in this regard with; those of the others, his predecessors or contemporaries.[3] Examination of the influences of this particular doctrine through Tirmidhī on the later development of Sufism will also be out of the limited scope of this paper.[4]

Here in this paper we shall only try to find out what, in all probability, were the ideas held by Tirmidhī in respect to wilāyah. Hujwīrī's Kashf al-Maḥjūb, which presents the first lengthy account of this doctrine of Tirmidhī, can very well serve as the base for this enquiry.

The aspects of Tirmidhī's doctrine of wilāyah which we propose to deal with in this paper are the nature of wilāyah, wilāyah'āmrnah and wilāyah khāṣṣah, ranks or hierarchy of awliyā', the interrelation-ship between wilāyah and nubuwwah; and the concept of khatm al-awliyā'.

Hujwīrī opens his discourse on the affirmation of saintship (wilāyah) with these words: You must know that the principle and foundation of Sufism and knowledge of God rests on saintship, the reality of which is unanimously affirmed by all the shaīkhs, though everyone has expressed himself in different language [later on he says that certain shaikhs formerly composed books on this subject, but they became rare and soon disappeared.€[5] He also quotes some definitions of saintship given by shaikhs such as Abū Yazīd.][6] The peculiarity of Muhammad b. 'Alī . . . lies in the fact that he applied this term to the theory of Sufism.[7] These statements clearly show that Hujwīrī was conscious of the fact that Tirmidhī was not the first

(Paris, 1961), pp. 143-48, as well as a very brief survey of Tirmidhī's doctrine of wilāyah in Henry Corbin's Histoire de la Philosophic Islamique (Paris, 1964), I, 273-75, can be very helpful in ascertaining the veracity of some of the ideas attributed to Tirmidhī.

[3] Corbin has pointed out that the word, concept and the thing itself of wilāyah are found in the texts concerning the teachings of Shiite Imams (op. cit., p. 273). Corbin has specified that the notion of double wilāyah found in Tirmidhī was first established by Shiite doctrine (ibid., p. 274). The concept of the double cycles of wilāyah and nubuwwah was also postulated by Shiite prophetic philosophy (ibid., p. 275).

[4] See, however, Arberry and Qadir, Eds., op. cit., pp. 26 f.

[5] Hujwīrī, op. cit., p. 212.

[6] Ibid., pp. 216-18.

[7] Ibid., p. 210

Sun to use this terminology, though apparently he does not know or does not want to mention even the earlier use of it, particularly in Shi'īte circles.[8] Then Hujwīrī presents the etymology of the term wadi, demonstrating that it has two maṣādir, first wilāyah meaning nuṣrat/ taṣarruf and rubūbiyyah, second wilāyah meaning imārah and maḥabbah, and that the term wale cannotes, at the same time, two senses, namely, murīd and murād of God, snowing that it is a bilateral relationship between God and man.[9] Alter that Hujwīrī makes two distinct categories of awliyā': first, generality of believers who have the help and protection of God against the lower soul, carnal desires and the devil, etc.; and, second, God's exclusive friends whom He loves and who love Him, so that they turn away from the favour of man Kind tie is their walī and they are His awliyā'. these "exclusives" have in them two other categories of stilt "more exclusives": first, upon whom He confers a "friendship" that enables him to persevere in obedience to Him, and keeps him free from sin; and, scond, upon whom He confers a friendship that empowers him to loose and bind, and makes his prayers answered and his aspirations efectual.[10] Hujwīrī, then, declares that "Now I will commend to you the explanation given by that venerable spiritual director who is the author of the doctrine."[11] (Perhaps in the sense that Tirmidhī was the first to present a full-fledged theory and system of Sufism based on the concept of wilāyah.) Earlier, Hujwīrī had stated that Tirmidhī's doctrine "was based on saintship,… and, he used to explain the true nature of saintship and the degrees of the saints and the observance of the proper arrangement of their ranks."[12]

To say that whatever follows now belongs to Tirmidhī is perhaps as difficult as to say that whatever was said up to now belonged to Hujwīrī himself. That in the preceding discourse Tirmidhī might be speaking through Hujwīrī could perhaps be borne out by the fact that the first of the two categories of awiiyā' made by Hujwirī corresponds to the concept of wilāyah 'āmmah presented by Tīrmidhī, according to Yaḥyā, in his Kitāb Khatm al-

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[8] See above, Note 3.
[9] Hujwīrī, op. cit., p. 211
[10] Ibid.
[11] Ibid., p. 212.
[12] Ibid., p. 210.

Awliyā',[13] and the second category., with its two sub-divisions, corresponds not only to the explanation of awliyā' and their two categories of maktūmān and ahl ḥail wa 'aqd made, according to Hujwīrī,[14] by Tirmidhī,[14] but also to the wilāyah khāṣṣah in Kitāb) Khatm al-Awliyā',[15]

According to the resume of the contents of Kitāb Khatm al-Awliya' by Yaḥyā, "wilāyah is at the same time presence and intimacy with God. It could be represented under the form of a sphere where the totality of believers are arranged in hierarchical order. For there exists a wilāyah of general order (wilāyah 'āmmah) and a wilāyah of particular order (wiiāyah khāṣṣah). On the general plane wilāyah embraces the great family of believers, in which the relation with God is effectuated by the enunciation of shahādah. It is the common bond of all faithful who believe in the message of God and His presence amongst them. But on the particular plane wiiāyah is reserved to the elite of God, to His intimates who communicate with Him by means of an effective and transcendent union. These beings are those of the maintenance, of the communication and of the sakīnah. They have access to the Divine councils and speak to God face to face. These two planes or conditions of wilāyah express, in some way, the distinction which exists between the virtual and the real. When the simple believer possesses in him the germs of future realisation by means of faith, the wall, properly said, realises effectively, by the sanctifying grace, Divine intimacy and proximity, in a word, the life in God. Thus the problem of deliverance and of vision of God is resolved in anticipation for wall, properly said, in this world; while it remains to be resolved for a simple believer in the life Hereafter."[16]

That the coming statement in Hujwīri regarding the nature of wilāyah is an exposition of the ideas of Tirmidhī, as Hujwīrī claims it to be, can perhaps be accepted on the grounds that, one, the concept of wilāyah presented here is similar to the concept of "proper" or "real" walī presented in Kitāb Khatm al-Awliyā', and, two, that at the very otutest Hujwīrī mentions ḥadīth ghibtah

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[13] See below, next para.

[14] Hujwīrī, op. cit., pp. 212 f.

[15] See below, next para.

[16] Yaḥyā, op. cit., pp. 146 f. Also compare wilāyah `āmmah and wilāyah khāṣṣah with the two modes of spiritual realisation, ṣidq and minna, respectively, presented in the same article (ibid., pp. 143-461.

which has almost been bracketed with the name of Tirmidhī[17] Hujwīri's statement is as follows: Cod has saints (awliyā') whome He has specially distinguished by His friendship and whom He has chosen to be the governors of His Kingdom and has marked out to manifest His actions and has peculiarly favoured with diverse kinds of miracles (karāmāt) and has purged of natural corruptions and has delivered from subjection to their lower soul and passion, so that all their thoughts are of Him and their intimacy is with Him alone. Such have been in past ages, and are now, and shall be hereafter until the Day of Resurrection n ... inasmuch as the traditional and intellectual proofs of this religion are to be found among the divines ('ulamā'), it follows that the visible proof is to be found among the saints and elect of God... through the blessing of their advent the rain falls from heaven, and through the purity of their lives the plants spring up from the earth, and through their spiritual influence the Muslims gain victories over the unbelievers."[18]

Tirmidhī, like all other Sufis, has a tendency towards classifying the seekers after God into degrees and ranks. In this connection Hujwīrī informs us that there are two categories of chosen awliyā': Those who are concealed are four thousand in number; they do not know each other, are unaware of the excellence of their state and are hidden from themselves and from mankind. Of those who have power to loose and bind and are officers of Divine court there are three hundred akhyār, forty abdāl, seven abrār, four awtād, three nuqabā', and one quṭb or ghawth. All these know one another and cannot act except by mutual consent.[19] At another place he mentions that every night awtād go round the world and if at any spot their eyes are not fallen some imperfection will appear there next day and they must, then, inform the quṭb so that he may put it right.[20] Here he dreams that Tirmidhī is one of the forty, that he is a watad, and the story of his meeting with the quṭb in the desert of Bani Isrā'īl may be mentioned.[21] Also, according to

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[17] Dhahabī, op. cit., p. 645 ; Subkī, op, cit., p. 20.

[18] Hujwiri, op. cit., p. 213

[19] Ibid., pp. 213 f.

[20] Ibid., p. 228.

[21] Tirmidhī, Buduw Shan Abī 'Abd Allah, Ed. `Uthmān Yaḥyā (Beirut, 1960), pp. 396-410; Hujwīrī, op, cit., p. 229; 'Attar, Tadkhirat al-Awliyā' (London, 1905), II, 92.

Massignon, Tirmidhī defined the degrees of sainthood in a letter to 'Uthmān of Rayy.[22]

Hujwīrī talks about the relationship between wall and nabi and between wilāyah and nubuwwah separately in a "discourse on the superiority of the prophets to the saints"[23] and also in connection with the discussion on miracles.[24] As a matter of fact, the major portion of his discourse on Ḥakimīs deals with the affirmation of karāmāt and the differentiation between karāmāt and 'mu' jizāt. It is almost impossible to say, with any measure of surety, how much of this lengthy discourse on karāmāt, which is a bit confusing and at some places perhaps self-contradictory, represents the ideas of Tirmidhī, except perhaps at two points where Hujwīrī explicitly ascribes them to Tirmidhī. First, that the denial of saintship and consequently the disappearance of karāmāt depend on something inconsistent with faith, namely, aspostasy (riddah) ; it does not depend on sin. The underlying idea is perhaps that, to quote Hujwīrī, "miracles (karāmāt) and saintship are Divine gifts, not things acquired by man, so that human actions (kasb) cannot become the cause of Divine guidance."[25] According to Yaḥyā this idea can also be found in Tirmidhī's al- Fare! Bayn al-Āyāt waal-Karāmāt where he has said that mu'jizah or āyah is a positive proof of the authenticity of the Messenger, while the karāmah is a simple providential gift.[26] Second, that miracles are manifested in the state of sobriety and composure (Ṣaḥw wa tamkīn) and not in the state of intoxication and rapture (sukr wa ghalbah).[27] This certainly is in line with Tirmidhī's concept of awliyā' as governors (ḥukkām) and mature beings (rasīdgān).[28]

As to the relationship between walī and nabī and wilāyah and nubuwwah, Hujwīrī says that, by universal consent of the Sufi shaikhs, the awlīyā' are at all times and in all circumstances sub-ordinate to the anbiyā'. Anbiyā' are superior to awliyā' because the end of wilāyah is only the begining of nubuwwah. Every nabī is a walī, but some awliyā are not anbiyā'. The

[22] Massignon, op. cit., p. 264.

[23] Hujwīrī, op. cit., p. 235-39,

[24] Ibid., pp, 218-35

[25] Ibid., p. 225.

[26] Yaḥyā, Loeuvre, p. 428.

[27] Hujwīrī, op. cit., pp. 226-28.

[28] See above.

anbiyā' are constantly exempt from the attributes of humanity (si f āt-i basharīyyah) while the awliyā' are so only temporarily.[29] At another place Hujwīrī says that the pre-eminence of Prophets depends on their exalted rank and on their being preserved from the defilement of sin.[30] He further elaborates the idea by saying that awliyā' are not presserved from sin (ma'ṣūm), for sinlessness belongs to the Prophets, but they are protected (maḥfūẓ) from any evil that involves the denial of their wilāyah.[31] This is Hujwīrī's explanation of Tirmidhī's doctrine concerning the relative ranks of walī and nabī and wilāyah and nubuwwah. He not only subordinates the awliyā' to anbiyā' but very explicitly and forcefully places the rank of nubuwwah above the rank of wilāyah. This is in open contrast to the account of Tirmidhī's ideas contained in Kitāb Khatm al-Awliyā' which, though it places anbiyā' above awliyā', very definitely subordinates nubuwwah to wilāyah or, to be more precise, regards wilāyah of a nabī superior to his nubuwwah. That is not all; it also says that God can give a walī a favour which He refuses to Prophets and Apostles. And perhaps a tendency towards equalising walī and nabī in respect to protection from sin can also be detccted in this account which proceeds as follows: The sphere of wilāyah en-globes not only the community of believers but also the Prophets and the Apostles, because they have in themselves, be ides their particular function, also the wilāyah. The personality of the Apostles like that of the Prophets has many functions. It is presented at the same time under the exterior from, which is then prophecy and under the interior from which then is wilāyah. However, every Prophet or Apostle is a walī, hut not the other way round. It can happen that God gives a walī favours which He refuses to Prophets and Apostles, e.g. the case of Solomon and his companion who had the science (Qur'an, xxvii. 40) and of Moses and Khiḍr (Qur'an, xviii. 65-82). In itself the wilāyah is superior to prophecy and apostleship. For one reason, because it is common to Apostles, Prophets and awliyā', for another reason because of its intemporal nature. It is an intimate and transcendent union with God. Prophecy has an eschatological nature. It is determined by the existential cycle. The apostleship has social nature. And thus prophecy and apostleship are situated on the temporal plane, while the wilāyah is situate I on a Divine

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[29] Hujwīrī, op. cit., pp. 237 f.
[30] Ibid., p. 219.
[31] Ibid., P. 225.

plane where it is an attribute and perfection. Among the Divine Names, and Attributes one finds walī and not nabī and rasūl. But the primacy of wilāyah over prophecy and apostleship does not mean that the walī should be superior to the Prophet and Apostle, because they are equally of the awliyā'. The Prophet and Apostle are protected from error by virtue of revelation, and the walī by virtue of ḥaqq and sakīnah.[32] However, the function of the Prophet being salvation demands the adherence of creatures, and those who refuse the message are considered infidels. For the walī, although the whole universe chants of his sainthood, adherence is not required, only solicited. His refuser incurs no formal punishment, but is deprived of Divine light.[33]

But Hujwīrī's account has some supporting evidence also. It is supported not only by a later source, namely. 'Aṭṭār,[34] but also by as early a source as Tirmidhī himself. He has presented two quotations from two different works of Tirmidhī in which the rank of nubuwwah is placed above that of wilāyah. The first, taken from Nawādir al-Uṣūl, says: "The jannāt 'adn are the abode of the anbiyā', upon whom be peace; and the firdaws is the abode of awliyā', which consists of ghuraf, which are the inner sanctum of al-jannah, in front of the door which leads to God's Throne. Men have fancied that these are abodes of the anbiyā', upon whom be peace, that none other than the anbiyā' reach these abodes. You should know that it does not comprise the abodes of the anbiyā', upon whom be peace, but the abodes of the awliyā'. The anbiyā' are above the awliyā' because the rank of nubuwwah is higher." The second, taken from Ma'rifat al-Asrār, says: "Know that prophecy constitutes forty-six portions, and these portions belong only to the Prophet. He who in reality possesses two or three of these portions is one of the saints (awliyā') through whom this world subsists."[35] If the above-mentioned works of Tirmidhī are authentic, and their authenticity has not yet been challenged, then, in the light of these two extracts, provided they are correctly understood, it would not be very easy to explain. Hujwīrī's account as an attempt, on the part of a very cautious orthodox Sunnī Muslim, to tone down the radical views of Tirmidhī and to bring it into line with orthodoxy. But, then, the authenticity of Kitāb Khatm al-awliyā has not been challenged

[32] Cf. Sulamī, Ṭabaaāt al-Ṣūfiyah (Cairo, 1953), p. 220.
[33] Yaḥyā, Annuaire, pp. 147 f.
[34] 'Attar, op. cit., pp. 97 f.
[35] Heer, "Bio-Biblio," p. 124.

either. It leaves us perhaps with only one possibility—the possibility of the development and change in the thinking of Tirmidhī. The question arises: which of these conflicting works was written earlier? Due to lack of information regarding Tirmidhī, this question cannot be answered yet. Or is there any possibility that under public pressure, which had resulted in his exile from Tirmidhī, Tirmidhī might have changed his views regarding wilāyah and had his books like Kitāb Khatm all-Awliyā thrown into the river?[36] Or was it that Tirmidhī was simply confused and inconsistent in his thought as seems to be more clear a case in his doctrine of khatrn all-Awliyā'?

Orthodox Hujwīrī is conspicuously free from any vestige of the idea of khātm al-awliyā', although he has the idea of the continuity of the institution of wilāyah as the prophetic evidence (burhān-i nabawī) until the Day of Resurrection.[37] But comparatively unorthodox 'Apr has the idea of khātim al-awliyā' and quotes Tirmidhī in the following words[38]:

According to Kitāb Khātm al-Awliyā', "just as the prophecy, symbolically represented under a form of sphere where the Prophets are arranged in order, is completed by the Seal of the Prophets, in the same way the wilāyah which man fests itself on the scene of history by the luminous figures of the awliyā' is completed by the seal of the awliyā'. The wilāyah like prophecy finds its complete blossoming in the seal. But while prophecy has ended with the Prophet Muhammad, wilāyah will go on until the end of the world."[39] Tirmidhi leaves no definite clue as to who is this khātim al-awliyā'. Arberry and 'Abd al-Qādir, on the basis of some extremely vague hints in the famous questionnaire of Tirmidhī, have drawn the conclusion that it can be supposed that the Prophet himself is meant by Tirmidhi to be the khātim al-awliyā'.[40] But this supposition cannot hold good on three grounds. Firstly, the same questionnaire shows that Tirmidhī himself wants to find out who deserves the rank of khātim al-awliyā' as the Prophet deserves the rank of khātim al-anbiyā'. Not only that, it also shows that Tirmidhī wasn't even sure

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[36] Tirmidhī, Budaw, pp. 393-96 ; Uhahabī, op. cit., p. 41 ; Hujwīrī, op. cit., p. 142.37.`Attar, op. cit., p. 97.

[37] Hujwīrī's, op, cit., p. 213,

[38] 'Attar, op, cit., p.97.

[39] Yaḥyā, Armoire, pp. 147 f.

[40] Arberry and Qadir, Ed., op. cit., p. 25.

of the meaning of the term khātim.[41] Secondly, had Tirmidhī thought that the Prophet is the khātim al-awliyā', as he is the khātim al-anbiyā', there is no reason why he should not have declared it. If he had so declared, there was a chance that he might have saved himself from persecution.[42] Thirdly, as Arberry and 'Abd al-Qādir have themselves pointed out, this supposition raises a number of questions which are difficult to answer. The term khātim has a dual sense of Kāmil and ākhir. If the Prophet is taken to be khātim al-awliyā' in the former sense, then, keeping in view Tirmidhī's concept of the continuity of wilāyah until the end of the world, it cannot be true in the case of khātim alanbiyā' because it will mean that the door of prophecy is also open which, according to Tirmidhī himself, is closed (و قد ختم الله تعالى بالرسول

الرساله و لم يبق فى الارض بعده الا الملهمون و المحدثون). If the Prophet is taken to be khātim al-awliyā' in the latter sense, then he cannot be so because wilayah is continuing after him. So it seems that if the Prophet is regarded as khātim al-awliyā, lot of confusion arises. But what if Tirmidhī meant that somebody else besides the Prophet is the khātim al-awliyā'? Then it will mean that this khātim should be superior to khātim al-anbiyā', because wilāyah in itself is superior to nubuwwah.[43]

ISLAM AND THE CONCEPT OF PUNISHMENT*

Islam imposes preventive punishments which may appear cruel or coarse if viewed superficially or without proper consideration. But Islam does not execute such punishments unless it ascertains that the crime was not justifiable or that the criminal was not acting under any obligation… Islam took similar precautions with respect to all the punishments it had prescribed…

Omar was known for his strict rigidity in enforcing the rules of the Shari'ah; therefore it cannot be said that he was lenient in the interpretation of the law. He did not carry out the punishment prescribed for theft (cutting the hand) during the year of famine…

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[41] Ibid., p. 16,
[42] See above, Note 36,
[43] Arberry and Qadir, Eds., op. cit., pp. 25 f.

It was reported to Omar that some boys in the service of Hatib Ibn Abi Balta'a had stolen the she-camel of a man from the tribe of Muznah. When Omar questioned the boys they admitted the theft, so he ordered their hands to be cut. But, on second thought, he said: "By God, I would cut their hands if I did not know that you employ these boys and starve them so that they would be permitted to eat that which is prohibited unto them." Then he addressed their employer saying: "By God, since I have not cut their hands I am going to penalize you with a fine that shall pain you," and he ordered him to pay double the price of the she-camel.

*From Muhammad Qutb, Islam, the Misunderstood Religion (Kuwait, Ministry of Awqaf and Islamic Affairs, 1974), pp. 248-49.

SUFISM AND GRADUAL TRANSFORMATION IN THE MEANING OF SUFI IN SAFAVID PERIOD

Hossain Mirjafari

The history of the Safavid dynasty can be divided into three periods: (a) religious (gnostic) period ; (b) religio-political period ; (c) politico-national period.

Shaikh Safi al-Dīn of Ardabil (650-73511252-1334), of the Safavid family, was one of the greatest Sufis who, due to his belief in Sufism, has gained considerable fame. Shaikh Safi was directed by Shaikh Zāhid Gīlānā (d. 694/1296) to follow the Khurāsānī order of Sufism.[44]

Both Shaikh Safi and his son Shaikh Ṣadr al-Din, as leaders of Sufism, were absolute followers of Sunnī faith.[45]

Khwājah 'Alī, Shaikh Safi's grandson, was the first in his family who showed a tendency towards 1māmis and became a Shī'ah but his inclination to this faith was not very strong.

The followers of Khwājah 'Ali basically changed their beliefs to Shī'ism, after Khwājah death in Palestine, in 831/1427. They extended the concept of

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[44] J.S. Trimingham, The Sufi Orders in Islam (Oxford, 1971), p. 100; see also his pedigrees in the same source, pp. 30-31.

[45] The first indication that Shaikh Safi was a Shāfi'ī Sunni is to be found in Ḥamdullah Mustawfi's Nuzhat al-Qulūb (Tehran, 1956), p. 92, written during his visit to Ardabil, five years after the demise of Shaikh Safi. He writes as follows: "The majority of the population of Ardabil are the disciples of both the Shāfi'ī school of the Sunni faith, and Shaikh Safi's." On the same subject see also:

(a) lbn Bazzār Ardabili, who himself was one of the disciples of the Shaikh, states in his book, S'afvat al-Saf (manuscript copy Ayasofya Library, No. 2123, Sheet 464), that Shaikh Safi was a Shāfi'ī Sunni.

The following sources can also be referred to, in relation to the Shaikh's beliefs.

(b) Ahmad Kasravi, Shaikh Ṣafi and His Clan, Tehran, 1948.

(c) Z.V. Togan, Sur l'origine de safavides, Melanges Louis Massignon, Dams, 1957.

(d) Die Safaviden, Saeclulum, 1953.

Shī'ism to the extreme, such that their leader (Fir) was now considered to be an emanation of God, displaying God's attributes.

Under the influence, of this extremism, the Firs began to treat those who believed in other religions, particularly Sunnīs, very harshly, ordering holy war (jihad) against them, during which Shaikh Junaid and Shaikh Ḥaidar, Shāh Ismā'īl's grandfather and father, were killed as partisans. Shāh Ismā'īl, who spent his early years in concealment and had narrow escapes from death, was later recognized as the spiritual leader of the Sufis.[46]

When the Safavid clan accepted the Shī'ah faith, Sufism lost its significance and was used only in its apparent and nominal sense. This was because the "Theory of the Unity of God and Man," which was the base of Sufism, is rejected by Shī'ism.

Those who followed Shaikh Junaid, Shaikh Ḥaidar, constituting their armies, were called Sufis. Various historical sources indicate that Sulṭān Ḥaidar had ordered his Sufi Turkoman artisans to wear scarlet caps (tājs) with twelve grooves standing for the twelve Imams of the Shī'ah distinguishing them from others, and that they granted them the honourable name of Qizilbāsh (red head).

The historians of the Safavid period believed that, although the "Red Cap" was called Tāj-i Ḥaidarī, there are proofs that a group of Sufis were using hats with twelve or twenty grooves, prior to the emergence of the Safavid clan.[47]

It is understood that the twelve-grooved hat in the Safavid time was not meant to be a hat or a sign of the twelve Imams, but was the symbol of those who were Sufis and who had isolated themselves from material life. Therefore, the word Kakāh-i Faqr or Kalālt-i Faithr meant really magnanimity or independence crown if one wore the twelve-grooved cap,

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[46] Laurence Lockhart, The Fall of the Safavi Dynasty and the Afghan Occupation of Persia (Cambridge, 1958), pp. 15-19.

[47] 'Ārif Ardabili, who wrote in the fourteenth century during Sulṭān Uwais Jalayar's time and who was invited to Shirvan, by Shirvanshah Kaykavūs ibn Qubād (744-745/1343-1344) states in his book entitled Farhād Nāmah (the only manuscript copy avilable is in Ayasofya Library) that there were a group of people using scarlet caps with twenty grooves, viz. "twenty-grooved hat on his head." "He has worn a beautiful ragged robe" (Muhammad 'Ali, Tarbiat, Adharbaijan scholars [Tehran, 1936], pp. 251-52).

one was considered to have abandoned the material world and reached the spiritual world. Being convinced of the importance of this symbolism, Shaikh Ḥaidar recommended all his followers to become Sufis and be none other than men of Truth.

Faḍlullāh Khurjī Iṣfahānī (d. 926/1520), the historian of the Aqquyunlu court, has several times indicated in his book Ta'rīkh-i 'A-lam Amīnī that the word tark means to give up all needs and desires for worldly wealth and physical welfare and to deprive oneself from the material life. He writes about his father: "My father Roozbehan replaced (Magnanimity Cap), rejecting his ancestor's positions, and lived in isolation."[48]

Faḍllullāh has indicated in his book the abstemiousness and worship of Shaikh Safi, the leader of the Safavid clan, and recited the story of Sulṭān Muḥammad Oljayto's invitation to the Shaikh to his feast, which was rejected by the latter as he criticised the Sulṭān's politics and acquisition of wealth, and also his greediness for the Sultanate Crown instead of Tāj-i Tark (Magnanimity Cap). The word tāj was defined in Tāj Nāmah, written by Shāh Ni'matullāh Wail as follows: "There are twelve grooves in each tāj, symbolising twelve abstentions and twelve demands. A Sufi should avoid twelve indecencies, and demand twelve decencies." The twelve "indecencies to be avoided are the following:

(1) Jealousy, (2) Spite, (3) Anger, (4) Rancour, (5) Egotism, (6) Cavil, (7) Selfishness, (8) Lasciviousness, (9) Inhumanity, (10)

Gluttony, (11) Sleepiness, (12) Evils.[49]

After Shaikh Ḥaidar's demise, the word 'Qizilbāsh was given to all his followers and the Sufis of the Safavid clan, thus, the word Qizilbāsh became equivalent to Sufi.

It is understood from the sources that before Shaikh Ḥaidar there were groups of people who had been wrapping a piece of red cloth round their heads. This caused fear in the heart of the onlookers. The first person who,

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[48] Fadlullah Khurji Isfhani, Ta'rikh-I 'Alam Ara'-I Amini, reproduced copy, Fath Library, Istanbul, No. 4431, p. 148.

[49] See the article entitled "A Research on Quizilbash" by Firouz Mansouri, in "Magazine of Historical Researches" (Rsr'ras Paay-i Tarikh-i), Tehran, No. 59, p. 145.

in Islamic history, wore a red head-band was said to be a man in the Battle of Uḥud and devoted his life to the Prophet Muḥammad:[50]

Islamic sources record that 'Ali, the son-in-law of the Prophet Muhammad, wore a red head-band in the Battle of Khaibar, showing his preparedness and seriousness towards enemies and showing that he was ready to die, but not to escape. As a result 'Alī was successful in conquering the Khaibar Fort.[51]

Ḍiya' Shākir, Turkish historian, acknowledging all the above references, states that ShaikhḤaidar followed Abū Dajānah and 'Ali in wearing a red head-band, saying that he will take revenge on his father's and grandfather's enemies and will gladly die for their cause. In order to generate more bravery, belief and co-ordination in his army, Shaikh Ḥaidar ordered everyone to wear a red head-band.[52]

Shaikh Ḥaidar's reason for wearing a red head-band and for making his army wear it was that, by these means, he could create an increased spiritual power and faith in his army and Sufis and show them the way of 'Ali.

At the beginning of his rule Shāh Ismā'īl's followers and devotees were called Sufis. Consequently in European countries where Shah Ismā'īl's name and fame had filled the political circles and also in other parts of the world where tourists and ambaasadors have spread information about Iran, Shāh Ismā'īl was called "The Grand Sufi". This name remained somehow with all Safavid kings till the decline of this dynasty.

During the time of Shāh Ismā'īl (907-930/15024524), all his followers and army-men were called Qizilbūsh and the title of Sufi was given to a limited group of people, so that the Sufis were mostly found in the tribes of Rumlū, Shamlī and Qājār. The king was commander and leader and had the title of Murshid-i Kūmil (Great Leader).[53]

The head of each Sufi tribe was called Khaiīfah and the chief of all Sufi tribes was called Khalīfat al-Khulafā . Because the chief was the deputy to the

[50] Ibn al.Athir, X.Kāmil Pi al-Ta'rikh (Egypt, 1938), II, 106,

[51] Ibid., II, 148.

[52] Ḍiyā' Shākir, Mezepler Tarihi (Istanbul, n.d.), p. 95.

[53] NaṢr Allah Falsafī, Zindagānī-yi Shah `Abbās-i Avval (Tehran, 1955-62), 1, 181-82.

Murshid-i Kāmil, his position was considered to be both spiritually and secularly very important.

This position was occupied mostly by the leaders of the Rumlū tribe out of whom Husain Qulī Rumlū came to be named as Khalīfat al-Khulafā' of Shah Ṭahmāsp (930-984[1524-1576) and Shāh Ismā'īl[54] (984-985(1576-1577).11

After Ḥusain Qulī Rumlū died, a man named Bulgar Khalīfah occupied the position of Knalīfat al-Khulafā . The latter was said to be of the Rumlū tribe. The other persons of the Rumlū tribe holding the position of Khaiīfah's while having other military and governmental posts were: Mr 'Alī Khalīfah Ramlū,[55] Sufyān Khalīfah Rumlū,[56] Muhammad Qulī Khalīfah Rumlū,[57] and Shāh Qulī Khaiīfah Rumlū.[58]

The basic condition for reaching the position of Sufi was unquestionably to obey the orders of Murshid-i Kāmil (the Great Leader—Shāh) and not to do anything against his will. Sacrificing life for the sake of Murshid-i Kāmil was the least and lowest possible degree of faith.

As a result of this deep faith and devotion to Murshid-i Kāmil or Shāh, some of the Safavid kings were reputed to have miraculous powers.

Many European missionaries who visited Iran during the time of the Safavids have recited stories about the supernatural power of the Safavid kings, although they did not fully substantiate the sources of these beliefs. A Venetian contemporary who visited Iran at the time of Shāh Ismā'īl's emersion writes as follows: "deceulx de sa cour et ses subjectz il est ador [sic] come prophete." That is, "Those who were in Shāh Ismā'īl's court and all his men were treating him as a,prophet."

A Venetian merchant, who was in Tabriz in 1518, states that this Sufi, namely, Shāh Ismā'īl, is loved and worshipped by the people of his country as

[54] Iskandar Beg Munshī, Ta'rīkh-ī-'Ālam Ārā'i `Abbāsī, 2 vols. (Tehran, 1955-56), I, 110-201.

[55] Ḥasan-i Rumlū, Aḥsanu't-Tavārīkh (a chronicle of the early Safavids), (Baroda, 1931), p. 134.

[56] Ibid,, pp. 268-69.

[57] Iskandar Beg Munshī, op. cit., II, 882.

[58] Ibid., I, 326.

God, and that his soldiers go to the warfields unarmed believing that they will be supported and watched over by their Master, Ismā'īl.[59]

Vincento D'Alessandri, Venetian Ambassador to Shāh Ṭahmāsp's court, states: The love and faith people have towards the king is unbelievable as they worship him not as a king but as a God and believe that since he is one of the grandsons of Ḥaḍrat he has the resurrection power.[60]

Jalāl al-Dīn Muhammad, the astronomer of Shāh 'Abbās I, has mentioned in his book the miraculous power of Shāh 'Abbās and writes as follows: When Shāh 'Abbās was a child he started to suck the milkless breasts of 'Alī Qulī Khān's mother and suddenly the breasts were full of milk.[61]

Also in the same book he says: Muhammad Mu'min ibn Mīrzā 'Arab Muqallad Marvī, was disabled at the age of five, his mother took him to the Shāh and the Shāh touched his disabled foot with his hand and immediately he regained his power to walk.[62]

Furthermore: When Shāh 'Abbās had gone as a pilgrim to Shaikh Ṣafī's speculchre in Ardabil, whichever lock he touched in different parts of the sanctuary, it opened immediately and this caused astonishment in the audience.[63]

All the beliefs regarding the Safavid king's miraculous powers find their origin in the deep-rooted faith in their spiritual and gnostic position. Those who lied to Murshid-i Kāmil or disobeyed him were sentenced to death by the Sufis. Bulgar Khalīfah, Khalīfat al-lx Khulafā'of Shāh Ismā'īl II (984-985/1576-1577) had the same fate when he lied to the kīng and he was kicked to death by Sufis at the king's order.[64]

The position of and respect for the Sufis in the Safavid period at gradually declined to a level where only a small and special group of

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[59] A Narrative of Italian Travels in Persia, trans. C. Gray (London, 1873), II, 203 and 8 and 206.
[60] Ibid., in 223.
[61] Jalāl-i Munajjim, Ta'rīkh-ī `Abbāsī, Tehran, Makek Library, No, 3762, sheet 2a.
[62] Ibid., sheet 200a.
[63] Ibid., sheet 238a-239b.
[64] Iskandar Beg Munshī, on. cit., I, 153.

people were called Sufis. They had a very simple administrative position in governmental offices in the time of Shāh 'Abbās I d (995-1038/1587-1629).

The Safavid kings had been choosing Sufis for the posts of Royal palace guards. A group of Sufis were private guards of the his king and always accompanied him and attended in his presence for the purpose of executing his immediate orders. Their number never exceeded 200 to 300 and their duty was to carry out the king's orders, executing those who were condemned to death by the king.

The Sufis killed their victims in Murshid-i Kāmil's presence with sword and battle-axe, or by kicking them to death. Sometimes they are their flesh after having murdered them.[65]

Shāh 'Abbās I hated the Sufis and did not trust them as they were disciples of his father Shāh Muhammad Khudābardah (985-4 995/1578-1588) who was deposed by Shāh 'Abbās.[66]

The attitude of Shāh 'Abbās I, and his disrespect for the Sufis, reduced their credit and importance amongst people to a level that they were dismissed from their posts as guards of the king and Royal palaces and were appointed as janitors of the buildings, watchmen and executioners.

Despite the above-mentioned treatment and disrespect, the Sufis never failed to hold their sessions of their circles on Friday nights and holidays, headed and led by Khali fat al-Khulafā'. Their food and lodgings were provided for at the order of the Shāh. Although the Sufis' respect and credit had declined to the extreme minimum, they were still considered to be the king's close men and by the majority of people they were reputed for their spiritual sacredness and position. Some people believed that a bit of Sufis' food was a cure and remedy for sickness and disease. Shāh 'Abbās, however, was not on good terms with the Sufis and called them ungrateful and rogues, but apparently pretended to respect them.[67]

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[65] When the body of Shaibak Khān was' taken to Shah Ismail, he hit it angrily with his sword and ordered the Sufis to eat his body (Rawḍat al-e, Ṣafaviyyah, Mirzabek Junabadi, Falsafī, I, 184).

[66] For more information as regards the enmity between Qizilbāsh leaders and Shāh 'Abbas I, refer to Iskandar Beg Munashī, op, cit., I, 381-85.

[67] Naṣr Allah Falsafī, op. cit., 1, 186.

Some of the Safavid kings insulted other groups of Sufis, besides disrespecting their own followers. J. Rypka recites in his book History of Iranian Literature, the following: "Religious orders died out under the pressure of Safavid policy and with them the Sufi conception and speculations, which were contested and suspected by the Mujtahids with the most intense hatred. To keep Maulavī's Mathnavī in the house involved constant danger. Moreover, Ṭahmāsp 1 (930-984/1524-15A) had already driven the Maulavīs from Persia. The Sutis were persecuted in an even more cruel manner by the last real Shah of the Safavid dynasty.[68]

Minorsky, quoting from Sanson, who visited Iran during the last years of Shāh Sulaimān's (10774105/ 1667-1694) reign, says that the Sufis who were once respected had now lost their repute in the court and were appoiated to the duties of watchmen, porters, horse grooms and farm care-takers.[69]

As a result of the decline in respect for and influence of the Sufis in the Safavid courts, Shī'ah Mullās were able to gradually extend their influence in the Safavid king's courts such that Sufis became to be considered the enemies of Safavid courts.[70]

Consequently, the policies of the later Safavid kings, especially those of Shāh Sulṭān Ḥusain (1i054135/1644-1722), who was a very prejudiced Shī'ah, were based on his personal hatred for the Sufis. The author of the history book Ta'rīkh-ī Ṭahmasiye (on sheet 131a) says that "Shah Sulṭān Ḥusain abolished the Sufis' path which, at the commencement of the Safavid kingdom, was a slogan. He also stopped holding any sessions or gatherings in the Sufis' circle Tawḥīd Knānah, which was built next to the king's palace, where every Friday night the Sufis' circle was held and where the king and high-ranking officers of the government together with the Sufi leaders used to participate in religious ceremonies.[71]

[68] J. Rypka, History f Iranian Literature (Doidrecht. 1968), p. 292.
[69] Tadhkirat al-Mulūk, trans. and commented by V. Minorsky (E.J.W, Gibb Memorial Series, New Series, XVI, London, 1943), pp. 13-14.
[70] J.S. Triminghaam, op. cit., p, 99.
[71] Klaus Michael Roohr Born, Provinze'n and zentralgewalt Persiens im 16. and 17 Jahrhundert Libertrogen ins Persische von K. Jahan-dari, 1971, Tehran, p. 58.

All Sufi leaders were from Isfahan and Mullā Muḥammad Bāqir Majlisī, the great Shī'ah Mu jtiahid, spread and extended his religious influence and power across the country.

Riḍā' Qulī Khan Hidayat mentions in his book Ravḍat al Ṣafā'-i Nāṣrī the exile of a Shī'ah religious leader from Iṣfahān who was accused to be a Sufi.[72]

It is astonishing that the Safavid clan which was the founder and promoter of Sufism and which endeavoured towards extending and strengthening Sufism, finally decided to cause its decline and abolition.

It is understood that Sufism was at the beginning a kind of spiritual and Gnostic movement which directed the disciples to loving worship of God, frankness, innocence and which campaigned against any luxury, prejudice and illogical rules and regulations.

But despite the willingness of the Sufi leaders and disciples, Sufism changed its nature from being a spiritual school of thought to an official, governmental and administrative organization which caused its own downfall.

In conclusion, it is worth noting that Sufism and Gnosticism were interrelated whith Shī'ism in the Safavid period. This caused a gradual disappearance of the apparent and external aspects and characteristics of Sufism and resulted in the extension of its spiritual and gnostic aspects, but the interchanging enabled the interrelation of these two paths to remain constant and unchanged.

THE LAST WORDS OF ALP ARSLAN

With one gesture, one turn of the hand,

a thousand strong forts I laid low,

And oft with one prick of my spurs

have I scattered the ranks of foe,

But now, when its Death who attacks me

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[72] Riḍā' Qulī Khān Hidāyat, Rauḍat   Nāṣīrī, 10 vols. (Qum, 1960), VIII, 586.

what profits are still with the sword?

God only endureth unchanging;

dominion belongs to the Lord!

The great Sultan Alp Arslan fell by the hand of the assassin. Joseph, a captive Christian, suddenly attacked him with his dagger and fatally wounded him on the chest. The dying monarch said to those who attended his last moments:

"I was advised by a sage in my youth to humble myself before Allah, to distrust my own strength and never to despise the most contemptible enemy. I have neglected these lessons and I have been justly punished. Yesterday I beheld from an eminence, the number, the discipline and the spirit of my armies: the earth appeared to tremble under my feet and said to myself: 'I am the greatest of kings and the mightiest of warriors. These armies are no longer mine and in the confidence of my strength, I now fall by the hand of an assassin.' "

—E. Gibbon, *Decline and Fall of the Roman Empire*

ECONOMIC SYSTEM OF ISLAM

Mian Abdul Aziz

In the world, today, the importance of economics cannot be denied. The basis of its importance is not on a common feeling that one's political and social freedom is of no value without economic freedom and similarly the achievement of solidarity, integrity and contentment is impossible without there being economic justice. But it is important due to certain questions in the human mind regarding poverty, unemployment and indigence causing socio-economic injustice in spite of unlimited wealth and surprising progress in the productive resources of the world. Why is it that about *60%* of the people even today are without food, clothing and shelter? Why are we not having collective welfare? This is how the Quaid-i Azam, while addressing the officers and men of the Ack Ack Regiments at Malir on 21 February 1948, expressed his feelings:

"Now you have to stand guard over the development and maintenance of Islamic democracy, Islamic social justice and the equality of manhood in your native soil."[73]

He had, also, earlier expressed the same kind of sentiments at Sibi on 14 February 1948 when he said:

"It is my belief that our salvation lies in following the golden rules of conduct set for us by our great law-giver, the Prophet of Islam. Let us lay the foundations of our democracy on the basis of truly Islamic ideals and principles."[74]

On the occasion of the opening ceremony of the State **Bank of** Pakistan on 1 July 1948, he said:

"We must work our destiny in our own way and present to the world an economic system based on true Islamic concepts of equality of manhood and social justice."[75]

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[73] Quaid-i-Azam Muhammad All Jinnah's Speeches (Karachi, n,d.), p. 61. 7. Ibid., p. 56.
[74] Ibid., p.56
[75] Ibid., p. 154,

Mr Justice (Retd.Hamood-ur-Rahman, has expressed that:

"Islam is our guide and a complete code of life for us. It is the source not only of our spiritual and moral values but also of our temporal values and as long as Islam remains the basis of our thought and activities, there is a chance of survival for us. It is the most comprehensive, dynamic and progressive way of life in the world providing guidance and instructions for every aspect of life."[76]

For the creation of a just and prosperous society and formation of healthy trends in civic life, Islam sets forth a comprehensive programme of moral rearmament for the citizens of an Islamic State. Life, from Islamic standpoint, is a unity. In Islam, religion pervades and determines all of its aspects.

The Islamic code of ethics presents a combination of lofty ideals with rationalistic practicability, while retaining at the same time a consistency with human nature. They have full capability of commanding the highest degree of obedience by virtue of their Divine source. All the human activity is conducted according to the will of the Almighty God. There is to be no violation of rules set in the Holy Qur'an under any circumstances.

The Holy Prophet has the unique distinction of being a three-fold founder of the most perfect religion in the world, of an ideal nation and of the largest empire then known to history. Hence his many-fold contributions in each field have to be taken into account to appreciate the magnitude. His contributions, in the field of religion, apart from the laws of the Holy Qur'ān, i.e. the high principles, which he set for himself were as follows:

1. He took the world as merely a place of temporary abode or as a preparation for the next.

2. He, therefore, by justice and fairness in his dealings, sought to acquire as much religious merit as possible.

3. He took upon himself the role of a mere servant of the people and a trustee for their welfare.

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[76] Pakistan Legal Decisions, 1976, p.215.

4. He **loved** for his people what he loved for himself.

5. His doors always remained open for the hearing of grievances and redress of the wrongs.

6. Justice coupled with mercy was the keynote of his policies.

7. He kept a strict eye on his officials, their honesty and activities.

8. He dispensed prompt and speedy juctice.

9. He maintained that a just ruler is the shadow of Allah on the earth.

10. He believed that Allah is kind to a ruler who is kind to his people.

There lies a guarantee in the social system of Islam for the welfare of orphans, widows and the poor.

Islam believes in the goodness of human nature. It expects all human beings to be well-wishers of their fellow-citizens, a contradiction and contrast to Marxism which presupposes—as implied in the philosophy of Dialectical Materialism—a perpetual conflict in the antagonistic interests of society. A Marxian holds that the modes of production in the material life determine the superstructure of society in relation to spiritual, moral, social, economic and political process of life. Morality is subservient to and derivative from material factors leading to an undirected expediency, without principles in the socio-economic life. The result is that the society falls.

Hegel has also confused himself while giving a new set of laws — dialectic forces. A critic points out the hollowness of the dictum in these words:

"The dialectic implied a moral attitude which is at once completely rigid and completely flexible and it offered no criteria of tightness except the success of the outcome."

The writer is not going away from the topic, but, in view of the current ideological debates, it, would be better to have a glance upon other economic systems also, so as to reach the correct point.

Human nature is a whole of various component parts inter-dependent and overlapping, and morality is the great influencing part of life. But the importance of moral aspect of life was under-estimated by Hobbes and Machiavelli, who presented a very dark picture of human nature. The creation of a just society remains a forlorn hope if these views regarding human nature are taken for granted. Islam, on the other hand, declares mankind as the best of the creatures, where individuals are held together by bonds of love, sympathy and compassion. *We* may, in this context, refer to verse 109 of Sarah Āl-i 'Imrān (iii.) of the Holy Qur'an, which reads as follows:

'You are the best nation sent forth for men. You enjoin good and forbid evil and you believe in God."[77]

But the Communists present outwardly a very attractive picture of their system. They say that the capitalist market system is a source of exploitation, and in the Communist society of the future, poverty, disease, hunger and pestile ice would be completely eliminated. As such the doctrine had a tremendous appeal to the suffering humanity of the world. There are certain practical aspects of Communism, in the field of economics, which, in the opinion of certain Muslim scholars, has a close similarity to the Islamic system of economics. But there are a number of fundamental principles which are most damaging to human society.

Basically, Socialism is a philosophy of life and a great movement which favours collective ownership of all sources and means of production, a system which claims to cover and provide guidance in every aspect of life. But it interprets history, under the influence of the philosophy of Dialectical Materialism, in a way that the only determining factor of life, in its social, economic, political and cultural aspects, is the economy. It brought about only a few good results, which are accompanied with its own serious evils in society. Moreover, Marx and Engels adopted an extremist attitude while discussing the evils of Capitalism. Their focus is labour only and all other factors of economic activity are ignored.

In the "Communist Manifesto" Marx and Engels have pointed out

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[77] Quoted in ibid., p. 103.

that, in advanced countries, the following ten measures will be adopted to establish a socialist society:

(1) Abolition of property in land and application of all rents of land to public purposes.

(2) A heavy progressive or graduated income-tax.

(3) Abolition of all rights of inheritance.

(4) Confiscation of the property of all immigrants and rebels.

(5) Centralization of credit in the hands of the State by means of a national bank with State capital and an exclusive property.

(6) Centralisation of the means of communication and trans-port in the hands of the State.

(7) Extension of factories and instruments of production owned by the State; the bringing into cultivation of waste-lands, and their improvement generally in accordance with a common plan.

(8) Equal liability of all to labour. Establishment of industrial armies, especially for agriculture.

(9) Combination of agriculture with manufacturing industries, gradual abolition of the distinction between town and country, by a more equitable distribution of the population over the country.

(10) Free education for all children in public schools. Abolition of children's factory labour in its present form.[78]

Socialism talks of the classless society which is not only impracticable but also illogical and ridiculous. This would be a society based on so many illogical ideas, where a person would be rewarded for his working capacity. The logical result of this principle would be that an unfit person will never *try* to improve himself, because he will be getting full reward for his being unfit.

Whereas a fit and capable person will lose his ability, capability and qualifications due to non-recognition of his efforts and qualifications (qualities). Morality is put to its lowest ebb and the doctrine of "end

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[78] K. Marx and F. Engels, Manifesto of the Communist Party (Moscow, 1966), pp. 73-74.

justifies the means" is acted upon. The output is use of violence and class war. Friedrich Engels says:

"The whole history of mankind (since the dissolution of primitive tribal society, holding land in common ownership) has been a history of class struggles, contests between exploiting and exploited, subbing and oppressed classes."[79]

Its whole approach to life and its problems is negative. The Godlessness of the Communist doctrine infuriates every Muslim, as the Muslims believe that faith in God and the message of the Holy Prophet is the only way to rescue humanity from failure and weaknesses of the present-day civilisation.

From the above discussion it becomes evident that the Communist doctrine was a reaction against the evils of Capitalism. In Capitalism a capitalist attains the position of a governor, but in the conduct of affairs he continues to retain the mentality of a business man. He pretends to speak the truth, but his heart is full of mischief and vice. A system based on injustice and corruption would disappear with the realisation that there is something higher in human values than the naked lust for political and material gains.

'Allamah Iqbal felt that Capitalism was oppressive in nature, and imposed immeasurable hardships on millions of people all over the world. It is completely uninvited for the emerging nations of Asia. In his Presidential Address to the Annual Session of the A11-India Muslim League on 21 March 1932, he explained his point of view in the following words:

"This is the inevitable outcome of a wholly political civilization which has looked upon men as a thing to be exploited and not as a personality to be developed and enlarged by purely cultural forces. The people of Asia are bound to rise against the acquisitive economy which the West has developed and imposed on the nations of the East. Asia cannot comprehend modern Western Capitalism with its undisciplined individualism. The faith which you represent recognizes the worth of the

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[79] Cf. Parveen Feroze Hasan, *Political Philosophy of Iqbal* (Lahore, 1970), p. 233, 8,

individual and disciplines him to give away his all to the service of God and Man."[80]

On another occasion, in a letter to the Quaid-i Azam Muhammad Ali Jinnah, dated 28 May 1937, Iqbal wrote:

"The problem of bread is becoming more and more acute. The Muslim has begun to feel that he has been going down and down during the last 200 years. Ordinarily he believes that his poverty is due to Hindu money-lending or capitalism. The perception that it is equally due to foreign rule has not yet fully come to him. But it is bound to come. The atheistic socialism of Jawaharlal is not likely to receive much response from the Muslims. The question therefore is: how is it possible to solve the problem of Muslim poverty ? And the whole future of League depends on the League's ability to solve this question. If the League can give no such promises I am sure that Muslim masses will remain indifferent to it as before. Happily there is a solution in the enforcement of the Law of Islam and its further development in the light of modern ideas. After a long and careful study of Islamic Law I have come to the conclusion that if this system of Law is properly understood and applied, at least the right to subsistence is secured to everybody."[81]

The Capitalists misuse the right of private ownership. There are minimum restrictions on economic activities and control of business vests almost directly in the owners. Although there is a spirit of competition and attempts are made to increase production, its evils are as glaring that Communists have come with charming slogans against Capitalism. Its glaring evils are injustice in the shape of low wages, monopolies, slavery and nationalist imperialism.

All its edifice is based on interest which is a curse according to the faith of the Muslims.

Capitalists always do their level best to keep the wages low and get more work from the workmen. This thing causes class war. Karl Marx derived his theory of surplus value from the primitive theories of classical economists. Capitalism always proved as a forerunner of

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[80] Ibid., p. 249.
[81] Letters of Iqbal to Jinnah (Lahore, 1974), pp. 17-18.

Colonialism. The Super Powers always try to create their influence zones to get markets for their products in developing nations. The Super Powers, to protect their interests, do not hesitate from suppression and aggression. The Viet Nam and Middle East problems are of the same nature. The history of the past two centuries is full of examples of capitalistic and colonialistic system. No doubt, the strategy and tactics do change with the changing circumstances. At one time the Capitalist Western nations sucked the blood of poor people of Afro-Asia by establishing colonies and dominions. And at present the developing countries are subjected to political conditions when getting economic aids and loans.

In such a society there are slogans of freedom and liberty, but in fact all is usurped by the rich, and the common man is with-out even the essentials of life. Democracy is a game of money. No poor person can think 'of luxury of the elections. Words like legal equality, civil rights, political freedom and autonomy are nothing but golden traps of the Capitalists. Getting scared from the Socialist *bloc* the West has modified their systems. Uncontrolled economy enables them to enter hoarding, dumping and monopolies. These evils are practised to grab high prices. Sometimes products are even thrown in the sea so that prices should not come down.

Interest *(usury=riba')* is the blood circulating in the body of Capitalism. Originally the word "usury" meant the act or practice of lending money on interest. It came to mean, in later use, the practice of charging, taking, or contracting to receive excessive or illegal rates of interest for money upon loan.

Those engaged in the accumulation of wealth through usury are referred to in the Qur'an as people who are "touched by Satan" (ii. 275). These people end up by losing all respect for human values. They convince themselves that usury and trade are the same thing. The question is that while people, who devote their labour and talent to the project in which they have invested funds, carry the entire risk of loss, the one who has loaned the capital will receive the agreed amount of interest regardless of the success or failure of the venture. This does not conform to any rational or equitable principle of economics.

In trade there is a reasonable division of the profit between the buyer and the seller. The seller receives a value equitable to the time, material, Iabour and talent which has gone into production and the buyer derives benefit for himself from the goods or services which he receives. There is no such division or exchange between the borrower and the lender of money. The lender receives an agreed amount of money for a fixed period.

Usury appears to add to one's resources and charity subtracts from them. In fact, usury obstructs moral, spiritual and economic growth and brings about social decline, whereas charity (and this includes loans without interest) helps in the economic and social development of society. Usury encourages selfishness, miserliness, narrow-mindedness and hard-heartedness and, as one pursues usury, these qualities become more profound. Charity results in broadmindedness, sympathy and generosity and the more one practises charity, the more these qualities are developed.[82]

Ingratitude on the part of man is looked upon with disapproval. Only those persons can indulge in money-lending who have acquired more wealth than their real needs. Such a situation should be regarded by them as a favour of God and, in recognition of this favour, they should adopt an attitude of generosity towards their fellow-beings. If they refuse to do so and part with their surplus funds only to exact whatever they can from those placed less favourably, they are being guilty of ingratitude and their conduct amounts to transgression.

There are two types of people: those who are interested only in adding to their wealth regardless of the rights of others and those who fear God and have a sympathetic and generous attitude towards others. They earn righteously with due regard to the rights of others and act generously not only by helping those who are in need but also by putting funds into projects which are meant for the good of the community. Those belonging to the first category have been condemned because no society can progress with such people. Those in the second category are approved and blessed. They are the ones who help build a progressive

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[82] For certain other aspects of the problems of usury, cf. Maulānā Abul-A'la Maudūdī, *Tafhīm al-Qur'an,* Sūrah Baqqarah, pp. 274-81.

society and for whom there is hope and happiness in the Hereafter.

The warning that people who do not give up usury will be treated as "in open hostility to God and to His Prophet" was administered after the conquest of Mecca, but it has been placed in Sūrah Baqarah because of its relevance to the subject. Prior to the revelation of this verse, usury was disapproved but had not been declared unlawful, but with the revelation of this verse, usury became a criminal offence in the Islamic State. The Prophet, through his functionaries, conveyed to those tribes in Arabia that practised usury that if they did not give up this practice they would be treated as at war with the State. The Christians of Najrān were granted complete cultural autonomy within the Islamic State but it was specified in the agreement that if they indulged in usury the agreement would become null and void and they would be considered to be hostile to the government. The last words of this verse persuaded Ibn 'Abbās, Ḥasan Baṣri, Ibn Sīrīn and Rabīd' b. Anas to conclude that "in an Islamic State a person who practises usury should first be compelled to abandon it and if he refuses to do so he should be executed. Other jurists, however, believe that such a person should be imprisoned and kept in detention till he undertakes to give up usury."[83]

Finally there is the advice that if a debtor is in difficulties he should be given time' to repay the loan. It has been inferred from this verse that an Islamic court will come to the aid of a person who is unable to repay his loans and will require his creditors to give him more time. In certain circumstances, the courts would be entitled to remit the whole or part of the loan. It is reported that a person who had incurred loss in business and was heavily under debt came to the Prophet for help. A number of people gave him monetary assistance at the instance of the Prophet, but even then the amount was not enough to clear his liability. The Prophet told his creditors that they should take whatever was available and forget the rest. Scholars have suggested that a house in which a person resides, cooking utensils, personal clothing and such instruments as a person needs in his profession must under no circumstances be confiscated towards the repayment of loan.

Poverty has been one of the primary concerns of the Islamic social

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[83] Altaf Gauhar, Translations from the Qur'an, p. 122.

system. Leaving aside the personal humanitarianism of some Muslim rulers, which is legendary in cases, there are certain fundamental principles of the *Shari'ah* which are basically concerned with this problem. A research scholar in her doctoral thesis has summarized the economic and social principles of Islam as follows:

(1) It is the duty of the State to provide every individual with the necessities of life, which include food, clothing, housing, education and medical assistance. In providing these necessities individual taste and aptitude should be given due consideration instead of uniformity.

(2) The State can fulfil this huge obligation only if the means of production are in its custody.

(3) Every individual should be given an assignment in life according to his capability and the opportunities available in society.

(4) Strictly from the Islamic point of view reward for work belongs to the labour and not to capital.[84]

The above characteristics of the socio-economic system of Islam are based on the interpretation of the Qur'an and Traditions of the Holy Prophet.

"Islam has often been described as a doctrine of Duties, but, more correctly described, the *Shari'ah is* law in terms of eternal transcendental norms to which mankind is necessari,y required al-ways to conform. Must of this law to be found in the Holy Qur'an itself, e.g. those relating to ritual, purity, prayer, fasting, alms-giving, pilgrimage, marriage, divorce, paternity, guardianship, succession and even laws of contract, civil wrongs, crimes, evidence and procedure. Islam being a *Din* projects life as a whole and the economic system cannot be discussed separately. The contribution of the Holy Prophet (peace be upon him) himself in this field has by no means been insignificant."[85]

Summary of the Salient Principles and Features **of** *Islamic* **Economic** *System*. The economic system in Islam is based on certain golden principles. Included among these are:

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[84] Cf. Parveen Feroze Hasan, op. cit., p. 236.
[85] *Pakistan Legal Decisions, 1976, p.* 103.

(1) *Circulation of Wealth.* The principle of circulation of wealth has not only been accepted, but such ways and means have been devised through which wealth continues circulating and does not accumulate. It has adopted all such measures which are helpful in creating an equitable society in which the principle of social justice is implemented and it has closed the doors of all sorts of human and economic exploitation.

(2) *Selflessness and Service to the Community.* One really appreciable aspect of Islamic system and way of life is that it infuses amongst it adherents the spirit of selflessness and service to humanity. It very clearly lays before it that one cannot be a real Muslim unless one loves for all Muslims what one loves for one-self. The Holy Qur'an appreciates the quality of the Muslims by saying that they are those who give preference to others over their own needs. So, an Islamic society prepares selfless human beings as against the selfish ones created by Western civilisation as declared by a philosopher no less than Schopenhauer who says: "a man is wolf to a man," which is a true picture of the man produced by Western civilisation.

(3) *Ethical and Human Values.* The economic system of Islam is based on ethical and human values. This system emanates from God. The Muslims are enjoined upon to implement this system and act in accordance with it, wherein, when a Muslim spends for the welfare of the society, he spends in the way of God, and for seeking His pleasure.

(4) *Welfare of the Entire Humanity.* This system has been organised keeping in view the welfare of the entire humanity.

(5) A *Just, Equitable, Workable and Progressive System. All* necessary steps have been suggested to establish this system as a just, equitable, workable and progressive economic system. It has been provided in Islam that adequate means of livelihood for all citizens be provided and in this respect all opportunities should be equally open to all citizens.

(6) *Freedom from Exploitation.* The doors of all sorts of human exploitation have been closed altogether, thereby freeing a man from the exploitation of any other man.

(7) *Limited Ownership. It* permits limited ownership and places effective checks on unlimited accumulation of wealth in anybody's hands.

(8) *Dignity of Work and Labour.* Dignity of work and labour is an established fact in the economic system of Islam.

The following steps have been suggested in order to achieve these principles, under the economic system of Islam:

(1) System of Zakāt. The paying of Zakāt is a compulsory duty of all the wealthy Muslims. The Prophet of Islam (peace be upon him) very truly remarked that Zakāt is the treasure of Islam, through which the welfare of the commnuity is achieved *Zakāt* is an institution which embodies in it the purpose of narrowing clown the gulf between the rich and the poor, encouraging social co-operation and stabilising the society. *Zakāt* is a special characteristic of Islam which encourages social co-operation, helps to balance the rich and stabilises the society.

(2)   *Other Sources of Revenue.* Islam has suggested other sources of revenue, included among which are: *Jizyah* (a tax levied upon non-Muslims), *Kharāj (a* tax on agricultural lands belonging to *Dhimmīs),* *Zariab* (a tax levied on the rich people in extraordinary circumstances), *Kura al-Arḍ* (a tax levied in lieu of land), and *'Ushr (Zakāt* levied an agricultural produce).

(3)   *Voluntary Spending for the Welfare of Human Beings.* **I***nfāq fī sabilillah is* important to such an extent that the Holy Qur'ān instructs its followers again and again to do this good action and there is no limit to spending in the *way* of Allah. In one of the verses of the Holy Qur'ān, it has been clearly stated that "What-ever you have in excess of your basic needs, spend it in the way of Allah for the welfare of the society." The Holy Prophet (peace be upon him) has remarked that "if in a locality a man remains hungry during the night, such a locality for its right to be under the protection of Allah". It is a wonderful fact that such a society was created by the Holy Prophet (pace be upon him), whose members were always willing to spend their wealth for the cause and welfare of needy and poor members of the society.

(4)   *The institution of* Qarḍ Ḥasanah. Loaning money without interest *(Qarḍ Ḥasanah)* has been sanctified by Allah *the* Merciful to such a degree that giving such loans to the needy persons amounts to giving these to Allah.

(5) *Prohibition of Concentration of Wealth.* In one of the verses, Allah has warned those who hoard capital for personal use. "They who hoard up gold and silver spend it not in the way of Allah, give unto them tidings (O Muhammad) of *a* pailful doom," meaning thereby that unrestricted accumulation of wealth has been prohibited by Allah. Similarly, other malpractices of concentrating wealth, like speculation, hoarding of commodities, games of chance, theft, robbery, adulteration, under-weighing and all such other illegal and malpractices have been strictly prohibited.

(6) *Prohibition of All Illegal Gratifications.* Illegal gratifications of all sorts and other practices of earning wealth by foul means have been strictly prohibited by Islam.

(7) *Prohibition of Other Malpractices.* Other malpractices, such as extravagance, luxurious living as well as miserliness, have been prohibited and a middle course has been suggested by Islam.

(8) *Prohibition of Usury.* Usury which sucks the blood of the economy and poor people has been totally banned in Islam, and taking of usury amounts to fighting with the Creator of the universes (Allah), the Prophet (Muḥammed) the State.

(9) *Obligations of the State.* The social and economic principles of Islam embody that it is the duty of the State to provide every individual with the necessities of life (food, clothing, housing, education and medical assistance), and to give assignment to every individual according to his capabilities and the opportunities available based on the principle that the reward for work belongs to labour, not to capital. All the sources of the State must be harnessed to the task of providing adequate means of livelihood for all its citizens. All the opportunities in this respect should be open to all citizens equally so that no person should enjoy a high standard of living at the expense of another.

Thus we see that the economic system of Islam is a middle course and a golden mean amongst the two extreme economic systems of the world, namely, Communism and Capitalism. The Islamic system is the only system which guarantees the true welfare of humanity, as has been expressed by 'Allamah Iqbal in his letter dated 28 May 1937 addressed to the Quaid-i Azam, quoted above.

DIVISIBLE AD INFINITUM

Shamsi

I

No philosophical problem has evoked as widespread and keen an interest as have the arguments of Zeno, son of Teleutagoras, the Eleatic philosopher of fifth century B.C.[86] Surprisingly, however, little interest has been evinced by philosophers or mathematicians in the hypotheses of atomicity and/or infinite divisibility—one or the other of which has been accepted by every interpreter as the hypothesis on which the arguments proceed or as the one on which the arguments would be valid—even though each one of these hypotheses is of immense interest in itself and one or the other of which has to be postulated with regard to the constitution of Space/Time in particular and of a pluralistic unite in general.[87] The present writer does not recall any comprehensive attempt at the analysis of either of these hypotheses; in fact, we know of only two detailed discussions of the hypotheses in question, the one being the Peripatetic critique of atomicity,

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[86] In our book, Towards A Definitive Solution of Zeno's Paradoxes (Karachi, 1973), we have listed nearly 200 works on Zeno's Paradoxes which is by no means an exhaustive list of even the works published in English !

[87] . By "a pluralistic unit" we shall mean an x such that x is a unit in its own right (with all the implications that the word "unit" carries with it) and is yet a "whole" consisting of distinguishable "parts," or such a "collection" of (discrete) units as is nevertheless a unit in its own right.

De Lineis Insecabilibus,[88] and the other being Hume's critique of infinite divisibility contained in his Treatise.[89]

With regard to the constitution of a pluralistic unit, apart from the atomistic hypothesis proper (the hypothesis that any pluralistic unit is composed of a finite number of indivisible units each of unit magnitude, hereinafter to be referred to as the "finposatomic hypothesis") and the hypothesis of infinite divisibility (the hypothesis that for any value of x, if x is a pluralistic unit or a part thereof, then x is divisible, hereinafter to be referred to as the "infible hypothesis"), two other hypotheses have been

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[88] Peel, Atomon Ghrarnmon (On Indivisible Lines) is justly regarded as a work by some writer of the Peripatetic School, but not to be a work of Aristotle himself. The treatise contains arguments against the possibility of there being "indivisible lines" (finposatomic hypothesis) as well as against the assumption that lines are constituted of "points" and time of "vows"—but it is not made clear whether a finitude or an infinitude of them supposedly constitutes the lines. (The author does not indicate what view he was defending. Obviously, he took it for granted that there could be only three possible views, and since two of them were assumed to get demolished by his arguments, the view exposed by the author could be taken as having been established. It is also obvious that that third view must have been an unconsciously held version of the imposinfible hypothesis.) Most of the arguments advanced are invalid as against the finposatomic hypothesis, though some of the arguments are of more than merely historical interest.

[89] David Hume (1711-1776), A Treatise of Human Nature (London, 1733, reprint, London, 1961), pp. 34-59. Of his numerous arguments against the hypothesis of infinite divisibility only one presents a serious difficulty in assuming space/time to be infinitely divisible, viz. the difficulty that no period of time would uniquely qualify to constitute the present. (We shall present this difficulty in our own way in Sections III and IV. However, another of his arguments presents a genuine shortcoming of the imposinfible hypothesis—which is what Hume naturally took to be the hypothesis of infibility, viz. that of imprecision and lack of absoluteness in the notions of "equality" and "inequality," which, in conjunction with other shortcomings, shows the imposinfible hypothesis to be inadequate for purposes of Science and Mathematics. Although not one of his arguments against the infible hypothesis, in arguing against the notion of (what Hume calls) "mathematical points," Hume has presented what is in fact the only serious difficulty in assuming anything, space, time, or the universe, to be posinfible, viz. the difficulty that the "points," "moments" and the like, are "plain nothing" (are magnitudeless and do not form any parts of any positive intervals) and yet must in some sense be contained in positive intervals. Hume's other arguments, it is contended, are inconclusive when not fallacious (Hume's main fault lies in his failure to distinguish between an idea in the sense of a concept and an idea in the sense of an image. In addition, he assumes that space/time being real must behave like material bodies. More-over. he unconsciously assumes that "the parts of x" is a meaningful expression even where x is supposedly infible.)

advanced which are obtained by a modification of the finposatomic and/or the infible hypothesis: (1) the hypothesis of there being parts of infinitesimal magnitudes[90] of which any pluralistic unit is constituted, postulated by the seventeenth-century founders of the Infinitesimal Calculus, and (2) the hypothesis of there being parts of null magnitudes of whose super-denumerable infinity[91] any pluralistic unit is constituted, hereinafter to be designated as the "infinzeratomic hypothesis," postulated by the nineteenth-century founders of modern mathematics. The hypo-thesis of there being infinitesimal parts of which any unit is constituted, apart from its having been discarded by mathematicians in favour of the infinzeratomic hypohthesis, is founded on the fallacy of appearing to define an actual entity while in fact only defining a hypothetical relation between an actual and a hypothetical entity. If y is of positive magnitude, then there is no x such that x is infinitesimal with respect to y, though we know what it would be like for x to be infinitesimal with respect to y if there were such an x. We have, therefore, not considered it worth our while to discuss this discarded hypothesis. We have discussed infinzeratomic hypothesis at considerable length in an earlier work, reaching the conclusion that the hypothesis involves a self contradiction.[92] The finposatomic hypothesis, we have shown,[93] involves no

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[90] Any number or any measurable quantity or magnitude A is said to be infinitesimal with respect to any other number or any other measurable quantity or magnitude B, if A is greater than zero and if for any value of n (n=1, 2, 3, . . .)n times A is less than B. Loosely speaking, for any value of y, if y is of positive magnitude and y>x>O, then x is of infinitesimal magnitude.

[91] Sets whose cardinality is greater than that of the set natural numbers are said to be "super-denumerable" or "non-denumerable" sets. One would not suppose that there could be a set whose cardinality was greater than the cardinality of the set of natural numbers or that one infinite set was numerically different from another infinite set. But Georg Cantor has offered a "proof" to establish that the cardinality of the set of real numbers is greater than that of the set of natural numbers. Many mathematicians did not accept the proof. I believe, those who accept Cantor's postulates are in the wrong in not accepting his proof ; but, I maintain. that the proof is vitiated by t the assumptions that (I) any given set can be the set of natural or real numbers, and that (2) if there is a one-to-one correspondence between two series A and B, we can say, even when A and B are infinite, that there are as many elements of A as of B, and that (3) an infinite sequence turned set has any cardinality at all. (The assumptions are the same as those of infinzeratomicity.)

[92] See "lnfinzeratomicity," The Pakistan Philosophical Journal, Vol. X[II, No. 3 (October 1975), pp. 47-84, and Vol. XIII, No, 4 (December 1975), pp. 34.72.

self-contradiction or any other insurmountable (logical) difficulty—all the arguments heretofore urged against it being demonstrably invalid—but the hypothesis is not satisfactory enough for purposes of Science and Mathematics. In what follows, we propose to discuss in detail the remaining alternative, the infible hypothesis.

We shall divide our discussion into two main parts. In the first of these we shall present a number of difficulties encountered in conceiving, or maintaining, something to be an infible unit or a part of a supposedly infible unit. Some of these difficulties have been stated by earlier writers; we are including them here partly to make our discussion comprehensive and partly to be able to show how best these difficulties can, in our opinion, be surmounted. The other difficulties we shall venture to present as arguments against the adoption of the infible hypothesis as such or in one of its more specific forms, the hypothesis of imposinfibility and posinfibility.[94] [By "imposinfible hypothesis" we mean the hypothesis that no such mngnitudeless things as "points" or "moments" are in any manner contained in any (supposedly) infible unit (of positive magnitude). In fact, on this hypothesis, there can be no (geometrical) "lines" or even "surfaces" (though there may be one-dimensional continua of other types), for, otherwise, there would be "points" too: two lines intersect in a point, and two surfaces intersect in a line. By "posinfible hypothesis" we mean the hypothesis that such magnitudeless things as "points" and "moments" are contained in (such supposedly) infible units (as "lines" and "periods" of time), their infibility notwithstanding, not as parts of units but as limits of and joints between any two parts of spatio-temporal intervals. A surface, on this hypothesis, is the limit of and joint between two solids, a line is the limit of and joint between two surfaces (i. e. two surfaces intersect in a line), and a point is the limit of and joint between two segments of a line (i.e. two lines intersect or meet in a point, and two contiguous segments of a line share a common point)]. We shall preface these difficulties—which presuppose there being no self-contradiction involved in the notion of a "pluralistic unit" with the more

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93 See "The Atomistic Hypothesis Reconsidered," The Pakistan Philosophical Journal, Vol. XIII, No. 2 (Jan. June 1975), pp. 14.42.

94 All these difficulties have appeared to me, at one time or another, to be compelling reasons for the rejection of infibility in general, or in one of its two specific forms of imposinfibility and posinfibility.

general difficulty of conceiving as a pluralistic unit This difficulty was encountered as soon as the Greeks started philosophising, but to which, in its purely logical form, it is con-tended, no definitive solution has yet been offered. In the second part, we shall endeavour to show how all these difficulties can be overcome, and shall go on to argue that the infible hypothesis, in its specific form of posinfibility, is the one which is not only presupposed both in (Euclidean) Geometry and the natural languages but which is, for purposes of Science and Mathematics, also the most satisfactory of all the hypotheses regarding the constitution of a pluralistic unit or, what is the same, regarding "whole"-"part" relationship,

II

If the whole Universe, Time or Space-Time, etc., is not conceived a la Parmenides as a simple unity devoid of all multiplicity—as the Parmenidean One—but as something capable of accommodating the being of the "Many,"[95] then the relationship

between the One and the Many with ragard to origination must be conceived of in one of two ways: (i) the One is given, and the Many arise there from by the process of division (e g. the Universe is given, the individual things arise as a result of division, actual or conceptual), and (ii) the Many are .the ones that are given, the One arising there from as a result of their aggregation (e.g. the individual things are there, the "Universe" is the actual or conceptual aggregation of these things). But whichever of these two views we take, we find a great difficulty in conceiving of the relationship between the One (whether given as a unit in its own right or supposedly obtainable from things given as units) and the Many (whether given as units in their own right or supposedly obtainable from something given as a unit) —that is to say, we find it difficult to have both the One and the Many, no matter with which of these two do we begin.

If we begin with something given as a unit and Endeavour to splite it up into a plurality of parts, then we are presented with a very difficult problem. If we imagine that the unit has actually been broken into a number of parts, then the unit ceases to be a unit properly so called and is transformed into

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[95] It is not really an ontological question. The problem is to let a unit, with all its implications, have parts, or to let a number of units give rise to a whole which can be a unit in its own right.

being a "collection" of discrete units, and, obviously, its unity and continuity disappear. If, however, we imagine the One as transformable into the Many not actually but conceptually, then the unity and continuity of the unit is retained but the unitness and discreteness of the parts obviously become questionable. In other words, if really discrete units are obtainable from what has been assumed to be a unit, then it is obvious that what we really have as given is a collection of units (a whole) and not a unit; if discrete units are not obtainable, then the One remains, undisturbed in its unity and continuity, but the Many fail to arise therefrom.[96]

If, on the contrary, we begin with a number of units and endeavour to obtain such a whole from them that it can be taken as a unit in its own right, then again it seems to be a hopeless task. All that we seem able to achieve is a collection of units so placed or disposed that there is an appearance of unity and continuity but where there is no real unity. The units do not "gnaw" into each other or interpenetrate each other. They remain united, like the beads of the rosary, only for so long as a string runs through them (or for so long as we keep them together in our thought) and gives them a semblance of unity, which disappears as soon as the string is removed. Some sort of string is necessary to unite the discrete units. But what can serve as the string, the link or the bond? It cannot be just another unit, say, B, between A and C—for, if it were just another unit, then again there would be needed a unit between A and B, and another unit between A and C.

Thus, if we begin with a given unit, we fail to obtain such parts thereof as would be units in their own right without destroying the unitness of the given unit; if, however, we begin with a number of units as given, then we fail to so reassemble them as to give rise to an aggregation which could be a unit in its own right.

III

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[96] This I believe to have been at the back of the controversy between the Greek Monists and Pluralists, even though their discussion is suffused with the ontological idiom, which hides the fact that what is at stake is the conceiving of an "indivisible whole" (a question of logical analysis) and not that of there being or not being in reality more things than one.

If there is to be an intelligible discourse, not to mention Science and Mathematics, the conceptual difficulties presented above must be resolvable, though we may not be able to see how the difficulties are to be resolved.[97]

If we do assume that the difficulties are resolvable, then we presuppose either that there can be an x such that x is a unit in its own right and is capable of being resolved into a set of parts each one of which is itself a unit in its own right, or that there can be a set of things each one of which is a unit in its own right and yet their aggregation can give rise to a whole which is a unit in its own right. In other words, if we do not enter into the question of primacy,[98] then we may say that we assume that there can be a "whole" (which is a unit in its own right) constituted of a number of "parts" (each one of which is a unit in its own right). Now the whole (given by itself, or given as constituted of a number of units) may be assumed' to be such that it can be resolved into indivisible components, or to be such that it cannot be resolved into indivisible components, i.e. can be resolved into only (further) divisible components. The former assumption we

have referred to as "finposatomic"[99] and the latter as "infible", As stated before, we have discussed the finposatomic hypothesis elsewhere. Here, we propose to present the difficulties one would encounter in assuming something to be an infible unit.

The problem of obtaining "parts" from a given "unit" (or a "whole" from a number of given "units"), as we just saw, is in itself very serious. But this problem gains in seriousness if we endeavour to obtain such parts from a

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[97] No earlier writer known to me (has) really succeeded in resolving it, because, I believe, the problem was not consciously seen to be a purely logical matter and because it was 'not realised that the solution of this problem was dependent upon the postulation of either the infible or the non-infible (atomistic) hypothesis (and was variable depending upon whether the former or the latter was the hypothesis postulated).

[98] The question being: with which can we begin, a unit or a set of units?

[99] We are here concerned with component parts and not with what we may refer to as constituent parts. Though we could make the assumption that there are indivisible parts (components or constituents), to which we should have referred as the atomistic assumption, I find it fruitless to do so, since, I believe, we have conclusively shown that the infinzeratomic hypothesis (the hypothesis that a positive interval is constituted of an infinitude of indivisible constituents) involves a self-contradiction. See "Infinzeratomicity," op. cit., Vol. XIII. No. 3 (October 1975), pp. 47-84, and Vol. XIII, No. 4 (December 1975), pp. 34-72.

given unit that the parts are not only units in their own right but are also further divisible into ever divisible parts (or, if we endeavour to obtain a whole from a number of units each one of which is itself composite)[100]

(1) To begin with, we would be faced with the difficulty that the parts, how small so ever their magnitudes, cannot be regarded as real units because of their being divisible themselves. If we resolve a given unit x into a set of parts, xi, x2, x3 ... xn, then, on the infible hypothesis, none of x1, x 2 n   can be regarded as a unit properly so called, for each one of them is resolvable into sets of parts and, as such, is a whole and not a unit. Whatever be the magnitude of the unit, and whatever be the magnitude of xi, x2, etc., these are, ex hypothesi, divisible, and, hence it would seem that they cannot be accepted as units in their own right.

(2) If x is of finite magnitude, and it is assumed that it is divisible ad infinitum, then one of two cases must be assumed: that (a) the process of division can get completed, or that (b) the process of division cannot get completed. But neither (a) nor (b) can be upheld, and hence it is impossible to accept the infible hypothesis.[101]

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[100] The problem of having such a whole and such parts that the "whole" is a unit in its own right and each of the "parts" is also a unit in its own right, can more easily be surmounted by adopting the finposatomic hypo-thesis. The unfitness of the ultimate "parts" is then unquestionable; the unitness of the "whole" is seen, in so far as space, time, and other mathematical abstractions are concerned, to reside in its continuity, and continuity is found on the finposatomic hypothesis to he nothing other than gapless continuity. The whole on that hypothesis, from the infible point of view, is but a logical fiction—but the whole is not required on the finposatomic hypothesis to be anything else. Whatever is stated about a given whole can be translated in terms of the constituent units.

[101] G.E. L. Owen, "Zeno and the Mathematicians," Proceedings of the Aristotelian Society, N.S., Vol. LVIII (1957-58), pp. 199-222, has rightly presented Zeno's "Metrical argument" in conjunction with his "Dichotomy argument". As will appear in the course of our paper, Zeno's argument could certainly have been of this form :
    (1) If x is infible, then the process of division is either :
    (a) capable of being exhaustively carried through, or,
    (b) is not capable of being terminated.
(2) If (a), then (i) the parts would either be magnitudinous or (ii) magnitudeless ; but if (i), then the whole must be infinite in magnitude, and if (ii), then the parts are plain nothing, do not exist at all, and cannot give rise to a whole of positive magnitude. If (b), then it would be impossible to traverse any distance, for, to be able to traverse any distance, it is necessary to traverse an infinitude of distances. That it is necessary to traverse an infinitude of distances can be seen by considering a race between a faster and a slower runner.

(al) That the process of division can get completed, cannot obviously be maintained without self-contradiction: is it not self-contradictory to maintain that an endless process comes to an end?[102] How can an endless process come to an end, since one can never get any nearer to completing the process?[103] Obviously, an infinite process cannot get completed.

(a2) Moreover, it is clear that the infinite process cannot be completed without an infringement of the generating principle. Sometimes commercial organizations employ persons on condition that they will receive a certain salary and the governmental tax thereon shall be paid for by the company. In company A, Mr. B was employed with the stipulation that Mr. B will receive a tax-free salary of Rs. x per annum. Fortunately for the accountant of the company, income-tax for the year was on the flat-rate basis of per rupee. The accountant started calculating the gross salary to be given to Mr. B, so that, after paying the income-tax, he could get the stipulated salary of Rs x. The accountant first wrote down "Rs x" and then added ((x)} rupees—the amount of tax on Rs x. The accountant then realised that the income-tax officials would not be satisfied with {_-_ b (x)} rupees, for the gross salary having increased to {(x)-#- b (x)} rupees, the tax due on the gross   a

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[102] Mathematicians would maintain that it is self-contradictory only in the etymological sense of "endless" or 'infinite," not in the sense in which a given (endless) process has a determinate number (a transfinite number) of stages. All the stages of the "endless" process, they maintain, come to an end when the relevant period of time comes to an end. [See, e.g., R.M. Blake, "The Paradox of Temporal Process," The Journal of Philosophy, Vol. XXIII (1926), pp. 645-52, and Bertrand Russell, "The Limits of Empiricism," Proceedings of the Arisroteilan Society, N.S., Vol. XXXVI (1935-36), p. 131.] We have argued against mathematicians' view in "Infinzeratomicity" (op. cit.) and regard those arguments of ours as conclusive.

[103] If x be any given stage, there would be just as many stages of the remaining process as there were at the very outset, for, if x is a given stage, then there would be only a finite number of stages between x and the first stage. Hence, at no given stage would anyone be any nearer to completing an endless process than he would be at any other stage, no matter how many stages there be between those two stages. Chas there is a legerdemain suddenness in the completion of an endless process. [Supporters of mathematicians' views too have felt this suddenness ; see, e.g., J. Watling, "The Sum of An 1nfinite Series," Analysis, Vol. XIll (1952-53), p. 46.] We have argued that this suddenness in completing an infinite process comes from the fact that what gets completed is a finite process such as traversing a finite distance which is by assumption turned Into the completion of an endless process such as traversing an infinituue of (component) distances ; that, in fact, no "endless" processes at all come to an end. (ace "infinzeratomicity," op. cit, Pt. 1, pp. 78-84.)

a2 salary amounted to €   (x)+   (x) rupees, or, b (x)}a b b2 rupees plus {_- bz (x) rupees. So he had to add up the latter amount also. But again, some tax had to be paid on the last mentioned amount. So he incorporated that amount too in the gross salary. But then some tax had also to be paid on the last addition to the gross salary, ... It would seem that the accountant cannot determine either the gross salary or the tax thereon without simultaneously determining the gross salary and the tax thereon. We may present here a section of the entries made by the accountant.

Net salary Income-tax to be payable to paid by the coin- Cross salary B piny on Mr B's y payable to B (in rupees)   gross salary   Mr (in rupees) _en 1. x   a   i -   — 2.   (x) I   2   3. x+_b (x) 4. b2 (x) 5. x-{ a (x) + a2 (x) 6.   ...7. z Total   x   --a- (x)+ b2 (x) +...3 x-{- - (+ 22 (x)+..._ea

It is abovious that, irrespective of the length of the register and the time at the accountant's disposal, he will not succeed in bringing his calculations to a satisfactory end.[104]

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[104] Mathematicians would, however, claim that the accountant can bring his calculation to a satisfactory end. When an Infinite number of entries have been made in either Column 2 or 3, the whole operation would come to a successful end—both the gross salary and the tax payable thereon shall have been calculated. The only difficulty they find here is that of the reflexiveness property, the whole being no greater than the (proper) part.

When all the entries in Column 2 or 3 have been made, and as such no entries remain to be made, it is obvious that the gross salary as also the tax payable thereon shall have been determined. Therefore, the only question is whether all the entries can be made, and it seems obvious that it cannot be done without an infringement of the generating principle Mathematicians, however, make an affirmative answer possible ; and this they do by a simple device—the times taken to make later entries become progressively shorter in the form of a 2-sequence. Thus, at the end of a finite period of time, a whole infinity of calculations gets finished. Some philosophers thereupon came up with examples of infinite series which had no natural (i.e. logical) limit : the infinity machines and the Hercules-Hydra Ordeal (M. Black, Analysis, Vol. XI (1950-51), pp. 91-101, and the series of on-off switchings of a lamp (J.F. Thomson, "Tasks and Super-Tasks," Analysis, Vol. XV (1954-55), pp. 1-13].

This obliged mathematicians to distinguish between two types of infinite series, and to maintain that both the types of infinite series can be completed and that in this respect there was no difference between them, the difference lay only in the manner of determining the result achieved : while in one type of series (the Z-sequence type of series) the result achieved (the state of affairs at the w+1th stage) was determinable a priori, in the other type of series (the Hercules-Hydra type) the result achieved had to be determined by convention. Paul Benacerraf tin "Tasks, Super-Tasks and Modern Eleatics," The Journal of philosophy,

(a3) If, however, the process is assumed to get completed, then the question arises as to the result thereof—whether or not a set of parts results?[105] (a3a.) It would defy our imagination that no set of parts results. (What happened to x, or to the parts or sub-parts into which it was resolved at one stage? They cannot just vanish. Each part is divided into shorter parts such that the set of parts is equal to x.) (a3b.) If a set of parts results, then the question is whether the resulting parts are finite or infinite in number. It is obvious that x must in principle be capable of being divided into art infinitude of parts. Since every (positive) part of x is, ex hyphothesi, divisible ad infinitum, it would seem that the number of the parts of any infible unit (obtained by exhaustive division) cannot possibly be finite; for, otherwise, only a finite number of divisions would be required to reach the parts, and, as such, only a finite number of divisions would, contra hypothesis, be possible. (If n be the number of parts, then the number of divisions required

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Vol. LIX (1952), pp. 765-84), argued that the result achieved, if any, was altogether irrelevant ; there might not in fact be any result at all—for example, the genie engaged to write out the series of natural numbers may get reduced by half at every next stage (being of full height at the start, reduced to half after/in writing "one," reduced to a quarter of his original height after/in writing "two" and so on). We have strengthened this line of argument by maintaining that on the imposinfible hypothesis, the result achieved was simply the completion of the relevant infinite process, and that on the posinfible hypothesis the result was the attainment of the goal, "the limit," but here "reaching the goal" added nothing substantial to the imposinfible result of the completion of the infinite process, and, finally, that it was because of the assumption of infinzeratomicity that a problem arises, which, however, is overcome by the fact that the w±1th term adds nothing to the w-sequence of terms. In fact, the problem of "what is the result achieved" does not arise where a really infinite extension is involved : the w+1th term need not be postulated at all ; where the infinity involved comes from infibility, there will have to be a w+1th term, but there a convention regarding the w±1th term would help resolve the problem.

We have, however, gone on to argue that the infinzeratomic hypothesis is self-contradictory. Hence, the endeavour to meet the Case of the Obstinate Accountant is seen to be a failure. and the difficulty presented by the Case of the Obstinate Accountant gets rehabilitated.

[105] This is different from asking the question as to what results. We are here asking whether any parts at all result ; the other question is : "What parts result?" i.e. "of what magnitude are the parts that do result ?" That the process of division must yield a set of parts is obvious, but of what magnitude must the parts be when the process of division has been exhaustively carried through has no answer, for the process of division, on the infible hypothesis, cannot be exhaustively carried through. (If, however, it is assumed that the process has been exhausted, that the resultant parts must be a continuum of zero-magnitudes. If one limit is, ex hypothesi, attained, the corresponding limit must also be attained.)

would be only n-1.) Hence, the number of the parts of x cannot possibly be finite. Therefore, we must assume that the number of the parts of x is infinite.[106] Now, the question is whether the (infinitude of) parts into which x is (in principle) resolvable are to be assumed to be of positive magnitudes, however small, or they are to be regarded as of no magnitude, It would seem that neither offers a tenable alternative. (a3bi.) We cannot assume that the parts are magnitudinous, for, (a3bia,) it would be in-compatible with our assumption that the process of division was completed—the parts of a completed process of division must be magnitudeless, for if y has any magnitude, then it would be, ex hypothesi, (further) divisible.[107] If y be one of the parts in question, then it is either magnitudinous and, as such, must be further divisible (and hence the process of division is shown not to have been exhaustive), or it is not further divisible and, as such, must be magnitudeless[108] (a3bib). Moreover, if the (infinitude of the) parts be

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[106] D. Hume and G.E.L. Owen both base the conclusion of infinitude of parts on the premises of division being otherwise finite in number. [In "Zeno's Paradoxes. Towards a Solution at Last," Islamic Studies, Vol. XI (1972), pp. 125-51, however, we have argued that the number of the parts of x must be infinite if it is assumed that there must be some number of the parts of x, or even that there can be any such thing as "the parts of x". (Hume seems to have also assumed that there must be some number of the parts of x.)]

[107] if y is a magnitudinous component of supposedly infible unit x, then y must be divisible, for, otherwise, x wound not be infible.

[108] This may be referred to as the 'Either-Divisible-or-Magnitudeless" argument. The argument is valid on the infible hypothesis, for, on this hypo-thesis, "to he magnitudinous" implies "to be divisible," and "to be divisible," on any hypothesis, implies "to be magnitudinous".

One of Zeno's arguments reported by Simplicius 'in Physics, 138, 18-19) can be so construed as to proceed on the "Either-Divisible-or-Magnitudeless" argument and lead to the claim that a supposedly infible unit must either be infinite in magnitude or be of no magnitude at all. The parts into which x has been resolved, xi, x2, x3, ... are either divisible or are magnitudeless; if x1. x2, x3, . . . are magnitudeless, then they are plain nothing and do not exist at all, and hence x must itself be magnitudeless and as such non-existent ; if, however, xl, x2, x3, . . . are divisible, then they must be magnitudinous, and hence their aggregate must be infinite in extent (assuming that "al+a2+a3+ . . ." must give rise to an infinite magnitude, if al. a2, a3, ... be magnitudinous). I did in fact so construe Zeno's argument in "The Atomistic Hypothesis Reconsidered" (see. p. 30) ; but I now think Zeno's argument to have been simply that if x is infible. there must be an infinitude of parts, which (i.e the parts) if supposed to be magnitudeless would not exist at all, but if supposed to he magnitudinous would give rise to a whole of infinite magnitude [l was probably misled by the fact that each of the constituent units is said by Zeno to be magnitudinous ; I thought that there being a

magnitudinous, then the addition of the (like) magnitudes of an infinity of parts must, contra hypothesis (that x is of finite magnitude), give rise to an infinite magnitude[109] (a3biia). But we cannot assume the parts to be magnitudeless either. For (a3biia) it would be incompatible with the assumption of infibility---that, for any value of y, if y is a part of x, then y is divisible—and hence y must be magnitudinous.[110] Moreover, (a3biib) if y is magnitudeless, then y is plain nothing and therefore y cannot exist at all.[111] Furthermore, (a3biiC) if the infinitude of parts into which x has been supposedly resolved are all magnitudeless, then the addition of their (zero) magnitudes cannot 'yield a whole of positive magnitude, for "0+0+0+ . .." is equal to "O" and x would have been, contra hypothesis, proved to be of no magnitude.[112]

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successor to a given constituent unit was a consequence of its being magnitudinous, assuming that the successor unit was a constituent sub-unit of the given constituent unit. Zeno, on the contrary, seems to have argued that. just as in the progressive interpretation of the Dichotomy, there will be an infinitude of succeeding constituent units and that each of those units must be magnitudinous (for otherwise they would not exist at all!), whence Zeno arrived at the conclusion that the supposedly infible unit must be infinite in extent.]

[109] This would seem to have been one part of the argument referred to by Simplicius. This, however, has been challenged by mathematicians (see, infra, Note 27.

[110] The argument may prima facie be met by distinguishing between parts which are components and parts which are' constituents. But. as we have shown in "Infinzeratomicity" (op. cit.) such a distinction would in the end be of no avail.

[111] This is one part of Zeno's argument reported by Simplicius. Mathematicians who do postulate such ys do not seem to me to have met the argument ; if pressed, however, they would probably retort that "But, ys do exist," and offer the continuum of real numbers as an example of a surer-denumerable infinity of degenerate intervals each one of which can he singled out, and hence cannot be. said not to exist at all.

[112] This follows from Zeno's argument, even if the purport of the argument be not to this effect. This argument, however, has been challenged in recent times. Modern mathematicians do not regard the argument as valid, maintaining that an infinite set of intervals each of whose members is of finite/positive magnitude may give rise to an interval of only a finite magnitude (such as the set of the distances of a Z-sequence) and that a non-denumerable set of degenerate intervals may give rise to an interval of positive magnitude [see. e.g,, A. Grunbaum, "A Consistent Conception of the Extended Linear Continuum as an Aggregate of Unextended Elements," Philosophy of Science, Vol. XIX (1952), pp. 288-306].

The parts, if members of a Z-sequence, would be characterised by the peculiarity that none of them is the smallest, and their aggregation would, therefore, not be like an aggregation in which each part is in magnitude equal to or greater than a given magnitude. The aggregation of such parts may or may not be equal to the given finite interval—to be more precise, the sum of the members of the aggregation may give rise to a magnitude

Thus, we cannot assume the number of the parts to be either finite or infinite, nor can we assume the resultant parts to be either magnitudinous or magnitudeless, and, hence, we cannot assume that a set of parts results as a consequence of the process of division. But either a set of parts results or a set of parts does not result from the exhaustive process of division, and,

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which is equal to or less than (but not greater than) the given unit—they cannot give rise to an infinite magnitude. If x be a member of such an aggregation, then there are/is only a finite number of the aggregation's members who are greater than x, while an infinitude of members is less than x. Even if we take the members out of the sequence and put them into a set, the position remains unchanged : given a member of any magnitude, an infinitude of members are of less magnitude than the given member's magnitude. If, however, we change the method of division—if, instead of dividing only one of the two parts into which any given part is divided, we divide both of the two parts and then each of the four parts and then each of the eight parts, and so on—then it appears at first glance that Zeno would have been vindicated. Not at all. If we have a set of members after the whole operation has somehow come to an end, then we think that since for any value of x, if x is a member of the set, then x has a positive magnitude, the addition of the magnitudes of all the members must yield an infinite magnitude. But we would forget that for any value of x, if x is a given member, then there is an infinitude of members such that each is of less magnitude than x. However, it might be asked as to what happens when such an exhaustive process of division has taken place; do we not have components of positive magnitudes? The answer is, we do not have such components. We reach the magnitudeless constituents. How to build up the given unit from the magnitudeless parts? Zeno is partially right: even an infinite (denumerably transfinite) set of magnitudeless parts ,cannot give rise to the given unit. These parts cannot obviously be added the way a set of given positive magnitudes can be added. But if the magnitudeless parts are laid out, then it is necessary that there should be no holes, which can be assured only if the degenerate parts be non-denumerably transfinite, or, in other words, only when all the degenerate parts between any two given parts are laid out. (Grunbaum is right in maintaining against Russell that what is philosophically important is not the compactness of points but the super denumerability of points.)
1t would thus seem that both the conclusions that the sum of the magnitudes of the infinitude of parts must be infinite, and that the sum of the infinitude of magnitudeless constituents must be equal to zero) are nonsequitor. If we do assume that an infinite set of components results, a view against which we have argued in "Infinzeratomicity," then mathematicians are to this extent right that the sum of the components cannot exceed that of the given interval. Again, if we do assume that a finite interval is constituted of an infinitude (super-denumerable infinity) of degenerate intervals. which too we have argued against in "Infinzeratomicity," then mathematicians would be right in maintaining that the "sum" of the magnitudeless elements can give rise to a finite magnitude. But, as stated in the paper referred to above, their views are based on unacceptable assumptions. Hence, the arguments presented in the text get rehabilitated.

since neither alternative is tenable, the assumption 'that the infinite process of divisions gets completed must be given up.

(b) If it is assumed that the process of division cannot be got completed—and this is what would seem to be entailed by the assumption of infibility[113]—then a set of three considerations would seem to make the acceptance of infibility impossible. We shall designate these considerations as the (b) Which-First? (b2) No-Last and (b3) Which-Now? arguments.

(b1) All was set for the Olympic race, and Achilles was tipped to be the winner by a clear margin. One of the competitors, whose name we are not allowed to disclose, engaged a famous dialectician, Zeno, son of Teleutagoras, to get Achilles disqualified from the competition. Zeno called on Achilles and asked him as to what he intended doing the next morning. Achilles told him that he had to run a race. Zeno asked him what Achilles pro-posed to do about that. Achilles told him there was nothing to do about that: the competitors could not muster half as great a speed as he was capable of, and, if he so desired, he could even give them a handicap and win the race. Zeno clarified his question—what distance did Achilles have to run, and with what speed he proposed to traverse the distance? Achilles told him that he had to traverse distance d which he intended to do with s speed. Whereupon Zeno said that Achilles could not do that—he had first to traverse half of d before he could traverse the given distance, d. Achilles agreed, and said that certainly he would first finish the half of d and then run the second half of d But Zeno said, "Before you traverse the first half of d, you must first traverse the first half thereof, that is, the first quarter of d...."

The next morning Achilles appeared with Zeno before the start of the race and asked the Umpire as to which distance he should traverse first of all. Since the Umpire was unable to get the better of Zeno in the ensuing "argumentation," Achilles refused to run unless the Umpire could tell him which distance he should traverse first of all, Achilles, it is obvious, cannot get started, for the track being infinitely divisible or infible, the Umpire is unable to tell him which distance he should traverse first, for, if he proposes any distance however short, that distance would be found to be divisible and

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[113] That is, "exhaustive division of an infible unit" involves a contradiction in terms; there can be no x such that it is a part of an infible unit and yet it cannot be (further) divided.

a part thereof would have to be proposed first (we shall refer to this argument as the Which-First? Argument/difficulty).

It would seem, therefore, that the hypothesis of infibility must be given up if Achilles is to traverse any distance at all.[114]

(b2) Assuming for the sake of the argument that the above report is apocryphal and that Achilles did run the race, the question is whether he could have succeeded in traversing the given distance, its infibility notwithstanding But to have traversed d is to traverse an infinitude of (part) distances, d1, d2, d3,… And it is obvious that if d cannot be fully divided into d1, d2, d3, . . . without completing the process of division, then d1, d2,

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[114] Zeno's Dichotomy argument interpreted retrogressively. The argument in this form has been quite fashionable in philosophical circles ; see, e.g , Sextus Empiricus. Adversus Mathematicos, 10, 139-41, P.E.B. Jourdain, "The Flying Arrow : An Anachronism," Mind, N.S., Vol. XXV (1916), PP-42-55, A.N. Whitehead, Science and the Modern World (1925, reprinted, New York, 1964), p. 118, and R. M. Blake, "The Paradox of Temporal Process," op. cit., Vol. XXIII (1926), pp. 645-54, esp., pp 646-47.

[In "Zeno's Paradoxes : Towards a Solution At Last," while presenting Zero's Dichotomy argument as the impossibility of enduring the whole of any finite period of time, I wrote : "I wonder why it has not yet occurred to anyone that Zeno long ago provided a very easy way out of mortality !" I must confess that I was then under the wrong impression that it had not occurred to anyone that the Dichotomy argument could be reformulated in terms of enduring a given temporal interval instead of being presented as the problem of traversing a given distance in a finite period of time. I had in mind Aristotle's solution on the basis of one-one correspondence between the parts of space and time, and it occurred to me that such a solution would become pointless if the Dichotomy were to be reformulated as the problem of enduring any period of time. In that case the problem (whether conceived as the traversing of a finite distance by traversing art infinitude of sub-distances or as attaining the fixed goal) will have to be solved on its own, without the ruse of one-one correspondence with a co-variable. (I was convinced that the addition of "infinite time" was an unnecessary interpolation, that the real problem did not stem from there being only a finite time at the runner's/ performer's disposal.) But it has been fully understood, at least since A.N. Whitehead, who clearly stated that "The true difficulty is to understand how the arrow survives the lapse of time" [Process and Reality (New York, 1929), p. 106]. I am ashamed to add that Aristotle himself not only realised that the real difficulty in the apprehension of change on the infible hypothesis was that there was no non-composite unit and that as such there could be no distance which was the initial distance to be traversed [as pointed out by H.R. King, "Aristotle and the Paradoxes of Zeno," The Journal of Philosophy, Vol. XLVI (1949), pp. 657-70 ; King quotes Physics, 237-b 3-6 and refers to 235-b-6 if., etc., in this connection], but also pointed out that passage of time presented the same conceptual difficulty as traversing a distance (see Physics, 263-a 3-b 9).

d3, ... cannot all be traversed either. Hence, if the process of division is not completable, then no distance d can at all be traversed. (We shall refer to this argument as the No-Last difficulty or argument). It would, therefore, again seem that the hypothesis of infibility must be given up if the whole of any distance, however short, is to become traversable.[115]

(63) In relation to time, the difficulty in infibility becomes very acute. To make the difficulty obvious, we might call it the "Which-Now?" problem. While two spatial intervals can co-exist in the sense of being in existence together (at the same time), no two distinguishable/differentiable temporal intervals can co-exist in the sense of being in existence together. No two (non-overlapping) intervals of time, however contiguous, can co-exist! if P1 and P2 be any two non-overlapping temporal intervals and if p1 be the present time, then P2 must lie either in the past or be yet in the future. But, if time were to be assumed to be infible, there would be an in-finitude of non-overlapping temporal intervals co-existing with each other, for, if p be an infible interval of time, then there is an infinitude of sub-intervals, Pt. P2, P3, . . . such that P1. P2, P3 are mutually exclusive parts of p and all are gathered together (in p). Or, to put it differently, if p be the present time—and some period of time will have to be the present time —then an infinitude of period of time, ph p2, P3,… (being parts of p) would be coexistent, even though no two distinguishable periods of time can as a matter of logic co-exist (to constitute the "present").[116]

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[115] This is Zeno's Dichotomy argument as usually understood. involving the claim that an infinitude of tasks cannot wholly be performed Some writers have rebutted the argument on the ground that it is only medically impossible, not logically impossible, to perform all of an infinite set of tasks [Sec. e.g, L. Couturat, De l'inftni mathematique (Paris, 1896), p. 462, and Bertrand Russell, "The Limits of Empiricism," Proceedings of the Aristotelian Society, Vol. XXXVI (1935-36), p. 144i] to this rebuttal some have given the rejoinder that there are no infinite sets of tasks of the nature in question, but only a series of finite sets of tasks [e.g. A. Ambrose-Lazerewitz, "Finitism and `The Limits of Empiricism,' " Mind. N.S., Vol. XLVI (1937), pp 382-85] ; we have, however, endeavoured to prove (in "Infinzeratomicity") that there can be no set such that it is a set of the parts of an infible unit or a set of the terms of an infinite series, or the like.

[116] This argument, so far as I am aware, is to be found first in David Hume (see D. Hume, op. cit , p. 38) Hume concluded that the "now" must be indivisible, and that time must be supposed to be composed of these (indivisible nows or "moments".

We might be tempted to continue with our arguments against the infible hypothesis and urge for example that on this hypothesis such concepts as "equality" and "inequality" would have no precision or absoluteness. But the validity or invalidity of such arguments would depend upon whether or not we postulate there being points, moments, and the like, in positive intervals (as connecting, or lying between, the components). In other Words, it would depend upon whether we postulate the imposinfible or the posinfible form of the infibility. We shall, therefore, now consider the hypotheses of imposinfibility and posinfibility.

<div align="center">IV</div>

The imposinfible hypothesis, it would appear, is beset with a formidable set of difficulties peculiar to itself.

(1) The foremost difficulty associated with the imposinfible hypothesis is that of inexactitude in such (otherwise precise) concepts as "equality" and "inequality". Let us divide—if not actually, at least conceptually--a given unit into two parts A and B. Now, if A and B are not determinable in terms of indivisible and homogeneous units—and, ex hypothesi, there are no such units on the imposinfible hypothesis here—then how can the one be held to be greater or less than, or equal to, the other? If we have two straight lines (i.e. what ordinarily appears as such to us) placed side by side, how are we to decide whether they be equal or unequal? In some cases, one of the two may be sensibly (visibly or factually) greater—as, for example, when the one is what we ordinarily regard as of one foot, and the other is on the same token of an inch of length--but how shall we decide when the two seem to be equal, or when the one seems to be very slightly bigger than the other? We cannot allow recourse to a smaller unit as measure, for how shall we make sure that the two segments of A and B, respectively, marked out by our measuring unit are exactly equal" For sooth, how shall we make sure that the segment marked out by our measuring unit in either A or B is exactly equal to our measuring unit? There being no smallest part of the lines or parts of A and B, we cannot determine with exactitude and precision their equality or inequality.[117]

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[117] If we were to depend upon cur sense of lapse of time for the determination of and comparison between temporal intervals. then the difficulty would become still greater, i.e the measure of time would be even more imprecise than the measure of space.

(2) Moreover, how would a part be determined and how would two contiguous parts be distiguished? Where would the one part begin and the other come to an end ? Since the unit is, ex hypothesi, imposinfible, we cannot postulate something magnitudeless ("points," "moments" and the like) as "parts" in order to distinguish between the parts of the given unit. If not, then what can distinguish contiguous parts? If we were to postulate another (an intervening) part between the two given parts, then how shall we distinguish between the just postulated part and the other two parts? The problem will remain unsolved, involving us into an infinite regress.[118] If, however, we postulate void between the two parts to be distinguished,[119] then the question is whether the void actually separates the parts or it leaves the parts in contact with each other. If we assume that the void actually separates the parts, then the continuity of unit disappears; if we assume that the parts remain in contact, then what the "void" would be and how would it help distinguish between the parts? Would not the parts remain undiffereatiable in that case, and, as such, be just one whole and not two parts?

Moreover, if there be no magnitudeiess parts to serve as "limits," then the unit itself, it seems, cannot properly be said to be something determinate, for, in that case, we may go on dividing the part that is the last on any set of divisions without ever reaching the last part of the given unit.[120] (If we take a line AB, and divide it into, say, three parts, AC, CD and DB, then neither AC nor DB would be the last part of AB. If we again divide the parts, AC into AE, EF and FC, and DB into DG, GH and HB, then neither AE nor FC, nor DG, nor (FIB would be the last part of AB.)

(3) On the imposinfible hypothesis the problem that any period of time is (further) divisible and, therefore, there can be no period which is uniquely qualified to be "the present" becomes very serious. We can have as short a

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[118] Thus, Zeno argued that if things (i.e. parts of (he universe) were many (i.e. if the universe had parts), then there would be an infinitude of them, for, between any two things (i.e parts), there would be an infinitude of things, i e. parts. (See Simplicius, in Physics, 140, 28 D)

[119] According to Aristotle (Physics, 2I3-a 12-b 29), natural philosophers postulated the void for two reasons. some because they thought that motion could not take place in a plenum, and some (the mentions the Pythagoreans) to constitute "a kind of separation and division between things next to each other.

[120] We are taking it for granted that for a 1inear interval to be determinate it is necessary that it should lie between two parts which serve as the end-parts of the interval.

period as we please, but even this would be divisible and would not qualify to constitute the "now". Thus we can have no knows. But the problem is, if no time is the present time, then nothing can happen in the present; everything shall have happened or will yet have to happen. But surely there must be a present, and something must be happening now, if it is to become something that had happened. All past time is past and gone; the future is yet to be: if there is no present, then what exists, and, again, if there is no present, then what will be the difference between that which (we believe) exists and that which does not? Is not time (as also space) an essential element of existence? Nothing happens in the future; now, if nothing happens in the present, then nothing happens at all, and the question is: how does it get into the past— then, how can it be the case that it had happened? Did it ever happen ? No. Then how can it have happened?

(4) Another difficulty is presented by the phenomenon of motion or, in a more general way, by the phenomenon of functional relationship between two variables. Taking the relatively more concrete case of motion, let us assume that we are in a room whose doors have been barred. Now, let a ball move from near one of the walls, W1, towards the opposite wall, W2. Let us assume that before the ball went from W2 to W2, it had remained at rest for a certain period of time, t1, and that the ball took a period of time 12 in crossing the room and reaching near W2. Let us assume that the ball's motion was continuous. During time 13, the ball is once again at rest at the spot it reached near W. Let us further assume that t1, t2 and 13 are parts of time t such that tt+12+t3=t. Now, during the interval of time it is in motion, i.e. during t2, the ball was nowhere outside the room; during t1 and 13, before and after its fight (?), it is indubitably (since, admittedly) somewhere in the room, and hence, it is nowhere outside the room. During the whole of time t, the ball is nowhere outside the room. If we subtract the room from the universe, we can say that the ball in question does not exist during the period of time 12. The ball is indubitably in the room during t1 and 13 ; the room remains completely closed during the whole of the period t; in no sense (i.e. on no hypothesis, finposatomic, posinfible, infinzeratomic, or any other [except a theory of re-creation]) is the ball anywhere outside the room during any part of time t ; the ball is throughout in the room during t on the finposatomic, the posinfible and the infinzeratomic hypotheses, i.e. there is a

sense in which the ball remains in the room during t2; therefore, let us assume

that the ball does remain in the room during 2, that is to say, during the whole of time t. Assuming that the motion of the ball, in going from W1 to W2, is continuous and that its speed remains the same throughout the period in question, we know that if ta be the first half of 2 and tb the second half, then the ball will have traversed the first half of W1-W2 in ta and the second half of W1-W2 in tb. We may continue the process and learn about shorter and shorter periods of time as to which (shorter and shorter) distance was traversed by the ball during that shorter period; but we shall not to able to determine the place where the ball is during any given sub-period of t2. Some philosophers have, therefore, concluded that the ball is nowhere during the period of its motion, it is ever engaged in passing from place to place. This view seems to be no less paradoxical. If during the period of its motion, the ball is supposed to be just nowhere, then two questions appear to suggest them-selves One, what happens to the ball while it is supposedly in motion? Does it continue to exist? If so, where—inside, or outside the room? Two, is there any essential difference between saying that the ball, while in motion, is nowhere inside the room and saying that it is nowhere outside the room? It seems that neither an affirmative nor a negative answer is at all possible, and hence that the assumption of imposinfibility is incompatible with the phenomenon of motion.

To begin with, we are unable to accept that the ball goes out of existence altogether when in a state of motion. What is sup-posed to be in a state of motion, if not the ball? And if the ball becomes non-existent, how is it that it, neverthelese, is in a state of motion? Are "to be" and "to be in a state of motion" contradictories of each other? The ball, we assume, continues to exist, and, therefore, it must be somewhere. Since the room is closed and it cannot get out of it, it must throughout have been within the room. But where exactly, granted that it is in the room? And this is the crux of the problem: determining the position of the mobile at a given moment, just as it can be done if space and time are supposed to be finposatomic in composition.

Let us take up the other question. It seems to be obvious that there must be some fundamental difference between the two statements. For, obviously, it cannot be in the same sense of "being nowhere" that the ball is nowhere in

and is nowhere outside the room. When at rest, the ball is in a specifiable space within the room and is nowhere outside the room in such a sense that if the ball were not in the room it would simply not exist. But now it is nowhere in the room and yet it (supposedly) continues to exist, even though it is nowhere outside the room in the same sense in which it was nowhere outside the room. In other words, the ball must be in the room even though it is, at the same time, nowhere in the room, while it neither is outside the room (in a general way) nor anywhere outside the room. To make the difference more striking, while in the room it is possible to let the ball strike our hands, it is not possible to let it do so outside the room (since outside the room the given ball, by assumption, simply does not exist), and, yet, it is nowhere either in the one or the other (i.e. the space inside or the space outside the room).[121]

In short, there must be, as said earlier, some fundamental difference between the two, but, within the chosen system, we are unable to see how to state this difference. Hence, the hypothesis of imposinfibility must he given up.

(5) Yet another difficulty is involved/implicit in imposinfibility, which we may refer to as the "Which-First?" dilemma to make the nature of the difficulty clearer (and later its solution easier). We had assumed in the preceding paragraph that the ball had a speed of zero space units per time unit during the whole of t1 (and again during t3), while throughout the whole of 2 it had a certain positive speed, x units of space per time unit. We had taken no note of the oddity involved in such an assumption. While we had demanded continuity of spatial existence, we had overlooked the fact that the ball's speed had jumped from o to x without having to go all the way from o to x. If the ball is not allowed by us to go from place A to place B without traversing the distance between A and B, how can we allow tile ball to reach the speed of x without its speed having to traverse the distance between o

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[121] If, for the time being, we revert to the assumption of space and time being finposatomic, then the desired distinction can he effected quite satisfactorily : The arrow is nowhere outside the room in the sense that at no microchrone during the given interval of time does it occupy any space out-side the room ; and it is throughout in the room, in the sense that during each microchrone of the given period of time it occupies specifiable space inside the room. And specifiable space here means a specifiable microtope or a specifiable collection of microtopes.

and x speeds ? When a car is started, does its speed jump from 0 miles per hour to say, 30 m.p.h. acquiring the speeds of, to mention only a few, 5 m.p.h., 10 m.p.h. or 1 S m.p.h. ? After all, why has the infible hypothesis been adopted as against the non-infible (i.e. the atomistic) hypothesis? Obviously, to have the feeling of smooth transitions without jerks and jolts—in other words, be-cause of the restrictions on divisibility. Let us, therefore, go back to the room, and assume that 2 is divisible into three periods, t_{2a}, t_{2b} and t_2, such that $t_{2a} + t_{2b} + t_{2c} = t_2$ and that while the ball moves with the uniform velocity of x in t_{2b}, the ball so moves during t_{2a}, and t_{2c} that its speed rises continuously from 0 and goes to x during and falls from x to 0 during t_{2c}. While we shall look for the place occupied by the ball during t_{2b},, we shall be looking for the position occupied by its speed during t_{2a} or t_{2c}. Now let us try to find out its getting into motion: during which sub-period of t_{2a} does it occur, and what is the ball's speed during that period. Now, during any part of t_{2a} the ball would be found to be in motion and hence to have a positive speed. As we approach the period t_1 backwards (by dividing and sub-dividing 12_a), we shall approach the speed of zero (the "speed" during 4), but no matter what part of t_{2a} we select, the ball would have a positive speed. We will never reach the sub-period during which alone (and not during any of its proper parts) the ball is first in motion, nor the speed which it attains immediately on getting into motion. Thus, it would seem that imposinfibility is self-stultifying: it fails to provide the facilities in the hope of which it may be adopted—radical continuity. Moreover, if we do assume that just as a distance cannot be traversed without first traversing a part thereof, and that likewise it is not possible for the ball to move with the overall speed of y during t_2 (or any sub-period of t_2) without it being the case that there is a proper sub-period of t_2 (or of the sub-period of t_2 in question) during which the overall speed of the ball is, say, one half of y, then imposinfibility would seem to be impossible.

(6) Another difficulty inhering/inherent in imposinfibility might be presented as Zeno's Metrical Paradox of Extension.[122] But that would have

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[122] The argument that if the infinitude of the parts of an infible unit are magnitudeless, then the given unit must itself be magnitudeless and, if the parts be magnitudinous, then the unit must be infinite in magnitude. This is how the Zenonian argument reported by Simplicius [H. Ritter and L. Preller, Historic Philosophiae Graecae (8th ed. Gotha, 1898)), fragments 133 and 135), has been construed. Another of Zeno's arguments, the one known as the

the effect of hiding the real difficulty and presenting another difficulty, the one which we have already discussed, viz. that $x1+x2+ x3+ \ldots$ is not equal to x. The real difficulty may be presented through the example of a train that traverses the distance between Rawalpindi and Karachi but does not reach Karachi., and yet remains in Karachi before undertaking the return journey. The train in question is in Rawalpindi during a certain period t1, it traverses the distance between Rawalpindi and Karachi during period t2, remains in Karachi during period t3, and traverses the distance between Karachi and Rawalpindi during period t4, and is once again in Rawalpindi during period t5. It is given that period $t=t1+t2+t3+t4+t5$, and that t1 is followed by 2 which is followed by t3, t4 and t5 in that order. The difficulty is that the train does not reach Karachi, yet it manages to stay for the whole of a positive period, t3, in Karachi, without there being a period of time between 2 and t3 The difficulty becomes very acute if we assume that the run of the train is uninterrupted, i.e. the train does not stop at any of the inter. mediary/way stations. Suppose that the railway track between Rawalpindi and Karachi goes via Lahore, but that our train does not stop at Lahore. We may, if we so wish, say that the train traverses the distance between Rawalpindi and Lahore as also the distance between Lahore and Karachi, but we cannot say that the train ever was in Lahore—for there is no period of time tx such that it is a part of t3 and during which the train is in Lahore. Thus, though the train could be said in some sense to pass through Lahore, it cannot be said to have been to Lahore. (This also is perhaps not a very good way of presenting the difficulty. The difficulty may be exhibited more simply, and more directly if not any more dramatically—as the difficulty of having no magnitudeless points and moments in addition to the positive intervals, with the consequence that while a distance is traversed, no position can be reached as a result thereof.)

(7) Achilles grants a finite handicap to a tortoise and runs a race with him,, Suppose he takes t time to traverse x, the handicap distance. If the

"Race-Course" or as the "Dichotomy" (which we designated as the "Fixed-Goal Argument" in some of our works) has been construed either as one part of the Zero-or-Infinite argument or as the clam that an infinite set of tasks cannot be performed. But we distinguish between the Metrical Paradox of Extension and the Race-Cou~se Argument, interpreting the latter as the claim that point p2 cannot come to be occupied from any point p1 as a result of even traversing all of an infinitude of sub-distances—as a result of traversing the distance between p1 and p2.

speed of tortoise is a/b that of Achilles' speed (a and b are any two natural numbers such that b> a), in t time the tortoise will have traversed   (x) distance. Achilles will take a/b (t) time to traverse a/b (x) distance, during which time the tor-a2 wise will have traversed a2/b2 (x) distance. Since, space and time are by assumption infible, there will ever remain a distance for Achilles to traverse to be able to catch the tortoise. The fact that we know where and when Achilles will overtake the tortoise (or in what period of time and over which length of space will the race be run) does not seem to be relevant, for what is involved is the question whether the overtaking is possible on the imposinifible hypo-thesis. There are two difficulties here: one, completion of an infinite sequence of runs, and, two, there being no positions (points) on the hypothesis of imposinifibility. We have maintained that infibility does not entail infinity of parts,[123] but, now, it would seem that an infinity of parts is inescapable. Achilles-tortoise race can-not involve anything less than a w-sequence of runs. And if we assume that Achilles must overtake the tortoise, we must be pre-supposing that an infinite process can come to an end. This part of the argument is applicable generally to the infible hypothesis. But the second argument involves a special difficulty of the imposinible hypothesis. Even if we assume that an infinite sequence of runs have come to pass, we fail to see how the tortoise would be overtaken, since the "point of overtaking" simply does not exist in an imposinfible race-course.

(8) This shows that there could be no Calculus on the assumption of imposinfibility. The Calculus might not stand in need of the notion of an infinitesimal magnitude, it does stand in need of the notion of "instantaneous rate of change," and this is obviously an insignificant juxtaposition of words on the hypothesis of imposinfibility. There being no "instants" on this assumption, there can be no sense in the expression "instantaneous rate of change". It is possible that a body may traverse the distance din one hour, two d distances in the next hour, and five d during the third hour. The speed of the body is not the same throughout the period of its motion, But we cannot describe the situation as it is done with the help of the notion of a differential coefficient.

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[123] In "Zeno's Paradoxes: Towards a Solution At Last," op, cit., Vol. XI (1972), pp. 125-51 ; see pp. 13032.

When we look at the arguments advanced against the imposinfible hypothesis, we may feel that all these arise because of the absence of what we call "the point" (and appropriate temporal and other counterparts), and that the postulation of points in infible spatial interval (and of moments, in temporal intervals, etc.) would make these arguments pointless if directed against infible units having points, moments, etc. If only we would have end-parts, as we have them in the (?) finposatomic units, we may feel, all the shortcomings of the imposinfible units enumerated above would have been obviated: "being somewhere," far from having to become a contradictory of "being in motion," would become quite irrelevant to "being in motion" as well as to "being at rest"; the science of geometry as we know it would become possible (once again !?): "instantaneous rate" would acquire a meaning and hence the Calculus would acquire a logical base; the threat posed to modern physics would have been removed and the theories in question would have been rehabilitated ; and, above all, the impalpability and fluidity inhering in imposinfible units would have been removed by the postulation of end-parts, which would have made any given unit, and any part thereof, as determinate as any finposatomic unit can be.

But no sooner shall we have desired to postulate such things as "points" than a question would suggest itself: how can we postulate an indivisible part of an infible unit? Is there no contradiction involved in the statements: "For any value of x, if x is a part of space/time, then x is divisible," and, "There is an x such that x is a part of space/time and x is indivisible"? The self-contradiction involved is too obvious to escape notice. Thus, it would seem that while it is in itself possible to postulate indivisible parts (= finposatomic or infinzeratornie hypothesis) the infible hypothesisis incompatible with the assumption of there being indivisible parts. This difficulty may be sought to be overcome by recalling that whole-part relationship is not invariably of the same kind, that it is not necessary that the part should be of the same logical type as the whole, and hence postulating that while it is necessary for a "component" of an infible unit to be itself divisible, it is not necessary for a "constituent" of an infible unit to do likewise. As no (finite) collection of such constituents could give rise to a unit of positive magnitude, we would be obliged to assume an infinity of constituents for any unit of positive magnitude--in short, we would he led to the infinzeratomio hypothesis. But

we have elsewhere shown that the infinzeratomic hypothesis is self-contradictory.[124] Hence, we are obliged to give up the assumption that there can be indivisible parts—of any type whatsoever, components, constituents, or what you will—of an infible unit.

If, however, we are not allowed to postulate indivisible parts, then how can we postulate there being such things as "points"? Can we conceive of something which is assumed to have the twin virtue of not being a part of any unit of positive magnitude, and of having no magnitude? In other words, if a "point" be some-thing which has no magnitude and which is not a component of any positive interval of space, can we conceive of something that could answer to this description? If we were to divide and sub-divide a given unit in the hope of reaching such a degenerate interval as a point or moment, we shell have engaged ourselves in an impossible task. The magnitudeless something cannot, exhypothesi, be arrived at by any such process. If not, then how can it be arrived at all? If we cannot arrive at it from something having positive magnitude, then it cannot be supposed to subsist in anything having positive magnitude. Having no magnitude, it is plain nothing and cannot subsist by itself. In short, it is simply inconceivable.[125]

Notwithstanding the foregoing argument, even if we were to postulate something magnitudeless, like a "point" or a "moment," the question would be: can such a plain nothing be in any way related to things having positive magnitudes—could, for example, a (magnitudeless) point occur on or be contained in a line (of positive magnitude) even though it is not a component thereof nor is it possessed of any magnitude, or a magnitudeless moment occur or be contained in a period of time even though it is not a component of any temporal interval nor does it have any magnitude? If we do postulate magnitudeless something, points or moments for example, as separating two parts of the given unit, then, apart from the fact that no separation takes place and as such the parts fail to arise, a question arises with regard to the inclusion of that magnitudeless something in the parts separated by it. If be a spatial interval of positive magnitude, and if we postulate a point C such that it helps divide x into parts, y and z, then the question is as to where is point

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[124] "Infinzeratomicity," op. cit., Vol. XIII, No. 4 (December 1975), pp. 34-72.
[125] Cf. Aristotle, Physics. 263-b 9-26.

C to be found—in y or in z, or in neither, or, per impossible, in both? In a sense C lies neither my nor in z, in the sense in which it does not lie in x ; but we have assumed that it does lie in x, and, hence, it must lie in either y or: if not in both—unless, of course, it lies in x but is continued neither in y nor in z. There does not appear to be any a priori ground why C should lie in y and not in z, or lie in z but not in y. Therefore we cannot assume that C lies in y, nor assume that it lies in z. We cannot obviously assume that C lies in both y and z. How can two mutually exclusive sub-sets have a common member? And, how can one thing become two things (in order to get into two mutually exclusive sub-sets)? The obvious answer to both the questions is, it is simply inconceivable. It would, there-fore, seem that C must be conceived as lying between y and z and not as lying in y or in z. If we "cut" the set of numbers x $(0 < x <- 1)$ into two mutually exclusive sub-sets, the set of numbers y such that $0 < y < 2$ and the set of numbers z such that $I/2 < z$

then the number "1/2" will answer to our magnitudeless something —it is a value for x, but it is neither a value for y nor for z, and hence lies between the set of values for y and the set of values for z. In other words, it seems that we would be led into the acceptance of the infinzeratomic and not the posinfible hypothesis, Even if the purely logical problem of a point or moment, etc., lying in two mutually exclusive parts of spatio-temporal units, etc., is supposed capable of a satisfactory solution, there would arise a problem in relation to the phenomenon of being in different states during different periods of time. If period of time $t=t_1+t_2$, and if moment in be the end-point of t_1 and the first moment of t_2, then, given that a body A is white during t_1 and green during 12, it would seem that none of a logically exhaustive set of alternatives with regard to being or not being white or green at m can be adopted, and, hence, that m cannot be postulated, at the very least, to be contained in both t_1 and 2.40 At in, or, for that matter, at any moment or during any time, A is white but not green, or A is neither white nor green (which is here equivalent to being either of colour x such that x is other than white and green or being colourless), or, per impossible, A is both white and green. But, as a matter of logic, A cannot both be white and not be white (Law of Contradiction), and hence A cannot be both white and green ; it cannot be the case that A is neither white nor green, for A is, as a matter of logic, either of some colour or it is of no colour (Law of Excluded Middle), and it is assumed that everything must be of some colour, whence it would

follow that if A is neither white not green then it must be of colour x (such that x is not the same white or green), but there is no reason why A must be of colour x at m when at no moment during t1 or 2 it is of any colour other than that of white and green, and, moreover, we can legitimately assume that during t body A is either white or green, and if during the whole of t it is white or green, how can it be of colour x at any moment contained in t ? ; it cannot be green at m, for during the whole of t body A is white and m is contained in ti ; and, finally, it cannot be white at m since A is green throughout the period 2 which contains moment m. Thus it is seen that body A can be in no relevant state of affairs, whence it follows that m cannot be contained in both t1 and t2 even if it is not that m cannot be contained in t altogether.

The phenomenon of change would seem to present yet another problem on the supposition that two contiguous parts of a unit share a point, moment, or the like. Given that period t=ti+t2. that body A is white during t1 and green during t2, and that moment in is shared by t1 and 2, it would again seem that none of an exhaustive set of alternatives can be adopted with regard to the question of A ceasing to be white and becoming green. When does A cease to be white and become green?. A cannot be supposed to cease to be white at any moment during t1, for, ex hypothesi, A is white during the whole of ti, and, as such, at any moment during t1 A must be supposed to be white ; A cannot be supposed to cease to be white at m since m is in t1 and at any moment during t1 A is white ; and A cannot be supposed to cease to be white at any moment during 2, for, ex hypothesi, A is green during the whole of 2, and, as such, at any moment during t2 it must be supposed to be already green. If so, then when does A cease to be white and become green? We may put it this way. There must be a moment in such that A ceases to be white at mc and becomes green; but, there is no moment in t1 such that it can be identical with mc, nor is there any moment in t2 such that it could be identical with mc, nor can m be identical with mc. If the answer is that there is no moment at which A ceases to be white, that it just is white during t1 and green during 2, then, apart from the charge of imposinfibility, we would be obliged to hold that at no moment does a thing go out of existence or come into existence. A thing, A, let us assume, does not exist during time t1, is in existence during t2, and does not exist during time t3, and that t1, t2 and t3 are mutually exclusive and t1±t2-}-t3—t such that t1 is followed by t2

which is succeeded by t3. Now, the question is: when does it come into existence, and when does it go out of existence ? Did it come into existence during t1, or during i2, or at moment m1 such that m1 is the junction between t1 and 2? Did A cease to exist during t2, or during t3 or at m2 such that m2 is the moment that lies in both t2 and t3? But A cannot come into existence during ti, for throughout the period t1 it does not exist ; it cannot come into existence during 2, for it is in existence throughout the period t2; and it cannot come into existence at m1 since m1 is contained in t1. and we have already held that A cannot come into existence during t1. And, similarly, A cannot cease to exist during t2 or during t3 or at m2. We might, therefore, be tempted to answer with Aristotle41 (as also with "modern" mathematitians) that it came into existence at moment ma which is the first moment of 2 (but which is not included in ti) and that it ceased to exist at moment mb which is the first moment of t3 (but which is not included in t2). But then we shall have given up the posinfible hypothesis, for, now, there would be no moment linking (and hence lying in both of) two non-overlapping periods of time, and shall have adopted something like the infinzeratomic hypothesis. If we do not adopt the Aristotelian hypothesis, then, it would seem that either the same moment be the last moment of being ungenerated and the first moment of existence, and the same moment be the last moment of life and the first moment of ceasing to be alive, or there must be two pairs of two separate moments such that one pair of moments consists of two moments of which one is the last moment of the state of being ungenerated and the other is the first moment of existence, and the other pair consists of two moments such that one is the last moment of being in existence/life and the other moment is the first moment of ceasing to be in existence/alive. But neither offers a tenable alter-native. At no moment can anything both be and not be; hence, there can be no moment at which a thing is both ungenerated and in existence. Again, there can be no two such moments, since there are no two consecutive moments on the infible hypothesis.[126]

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[126] Ibid., 263-b 9 if. ("It is also evident that, when, speaking of the subject of motion or change, unless we assign the instant that divides past and future time to the state into which that object turns and in which it will be for the future rather than to that which it turns out of and in which it was in the past, we shall have to say that the same thing both exists and does not exist at the same instant, and when it has become something it is not that something it has become.")

We may present the argument differently. There is a phenomenon which is incompatible with the hypothesis of posinfibility, or, at least, a phenomenon which cannot be treated posinfibly. (Is the second alternative necessary? Can we not dispense with it?) If x and y be any two distinct (i.e. nonidentical) positive states[127] of body A and if x and y be consecutive, then there can be no S such that S is a degenerate state[128] and S is contained in both x and y. In other words, if period of time t=t1+t2, and if body A is in state x during t1 and in state y during t2, then if S be the end-point of x, then not only that S cannot be an end-point (first degenerate state) of y, y can have no first degenerate state at all, and if S be the first degenerate state of y, then not only that S cannot be the end-point of x, x can have no endpoint at all ; and this would seem to entail that if m be the end-point of t1, then not only that m cannot be an end-point (first moment) of t2, t, can have no first moment at all, and if m be the first moment of r2, then not only that m cannot be the end-point of t1, t1 can have no end-point at all. In short, there can be no degenerate state which lies in both of two consecutive positive states, and hence there can be no moment which lies in both of two consecutive periods of time. But, there can be (and, 'as a matter of fact, there are) two positive states of a given body such that the two are consecutive but are different from each other. Thus, all possible states of affairs cannot be dealt with on the posinfibie hypothesis; and if some one hypothesis has to account for everything, then we can-not adopt the posinfible hypothesis.

MY SWORD BELONGS TO MY SUPREME MASTER*

The First Great War culminated in the victory for the Allied arms. Turkey had joined her lot with Germany. Germany was defeated and Turkey sailed in the same boat.

An armistice was signed and Turkey was to surrender, among other territories, Medina to the English forces.

Fakhr-ud-Din Pasha, the Military Governor of Medina, declined to surrender the Sacred City to the foreign forces. The Sultan was informed and

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[127] . A "positive state" is a state that persists for a positive interval of time. (Here "positive" is opposed to "degenerate" and not to "negative".)

[128] A state may be said to be degenerate if it is momentary, i.e. if it does not last for any period of time, however short. in other words, a degenerate state is an end-point of a positive state.

he sent a seccond command for immediate surrender, but Fakhr-ud.Din was obdurate.

There was a long and cruel siege. The stock of food and water ran out and the suffering of the inhabitants knew no bounds. But Fakhr-ud-Din was still unmoved in his resolve: he would not surrender his sword to the foe.

At last his staff begged him to spare the lives of all of them what was certain starvation. Just at this moment a third order from the Sublime Porte arrived---an order for the immediate evacuation of Medina according to the terms of the armistice.

The heart of Fakhr-ud-Din broke. Deeply agonised he silently wended to the tomb of the Prophet and sobbed out: "My sword belongs to my Supreme Master; if I am to give it up for the sake of human life, it would be to him alone." With that he laid his sword at the foot of the holy sepulchre and swooned,

*From Halide Edib, The Turkish Ordeal

LOCKE'S MEANING OF SENSATION, PERCEPTION AND IDEA

Mrs. Arifa Shameem

Much confusion has resulted in Lock's epistemology on account of his loose use of the terms "sensation," "perception" and "idea". In the introduction to Essay, Locke uses the term "idea" to stand for "whatsoever is the object of understanding when a man thinks".[129] In Book II, Chap I, pp. 43-44, Locke classifies the immense variety of ideas under two heads: (I) ideas of sensation ; (2) ideas of reflection.

"Sensation" he describes as the source and fountain of most of our ideas. By "sensation" Locke means here either (1) a faculty of indefinable knowledge or (2) the data of sensory knowledge, namely, the sensory manifold. Describing SENSATION as the source or fountain of most of our ideas, Locke writes this term in singular and with capital letters. This suggests that by "SENSATION" Locke understands a faculty of indefinable knowledge. But a more plausible implication of Locke's use of the term "sensation" is that impression or sensory manifold which is imprinted on the mind when the mind is affected by external sensible objects. If this is Locke's meaning, he should have used the term "sensation" in plural. Locke further confuses his meaning by de-scribing sensation as the "fountain" or "source" of knowledge. It is not clear from Locke's use of the term whether this fountain of knowledge is within the subject or without. If it is within "sensation," it is the subject of knowledge; if without "sensation," it is the crude content or object of knowledge. Locke uses the term "sensation" in comparison with "reflection". In this con-text sensation appears to be the same as "senses" or the organic affection that produces perception in understanding.[130] It is difficult to ascertain what Locke could have meant by "senses". Are "senses" identical with sense organs, or does Locke use the term "senses" to signify a faculty or the mind, through which the mind gets the crude sense data? If the latter, then what is the relation and distinction

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[129] John Locke, An Essay Concerning Human Understanding. Edited and abridged by A.S. Pringle-Pattison (Oxford : Clarendon Press, 1950), p. 15.
[130] Ibid., p. 43, footnote.

between this faculty and the faculty of perception which is later described by Locke as the first faculty of mind?

Locke's language becomes all the more confusing when he uses the terms "perception" and "idea". He defines an idea as "whatsoever is the object of understanding when a man thinks."[131] Understood in this sense a sensation is also an idea, for it is the object of mind's simplest operation. namely, perception. But this does not seem to be Locke's only meaning, for Locke frequently uses the term "idea" to stand for a meaningful sensation and not for bare sensation. Locke calls yellow, white, heat, cold, etc., "ideas". If these are ideas in Locke's language, then an "idea" is certainly a meaningful sensation, and is at a higher level of knowledge than bare sensation. And when he talks about ideas of sensation, this should be taken to mean a sensation to which meaning has been added by the mind. Locke's confusion here is on account of his inability to draw a logical distinction between two different levels of knowledge. One is the level when the sensible object, by affecting the senses, produces sensations. The other is the level when the mind operates upon the sensation and comprehends and connects it with other perceptions or meaningful sensations. Historically, these two levels of knowledge may be simultaneous, and may not be distinguishable in term of before and after, but a logical distinction can certainly be drawn. The level of sensation is logically prior to the level of perceptions and, with regard to the degree of knowledge, the former is lower than the latter. Keeping in view these distinctions, it is difficult to say what Locke must have meant when he used the term "idea" for "whatsoever is the object of understanding when a man thinks". Does he mean by "idea" a percept (bare sensation), or a concept (meaningful sensation)? He seems to imply both. When the mind is employed about an external sensible object, an idea is a percept (bare sensation). But when the mind is employed about some percepts and then relates them to some other percepts, and classifies them, these percepts acquire meaning and are still described by Locke as ideas. In other words, when the mind is at the level of passive thinking,[132] its percepts are ideas. But when the mind is employed in active thinking, these percepts are distinguished and defined. Locke continues to call them "ideas".

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[131] Ibid., p. 15,
[132] Ibid., p. 92

Locke's language becomes still more confusing when he uses the term "perception" to describe an "idea". He frequently uses the two terms interchangeably. About ideas of sensation he writes: "our senses conversant about particular sensible objects do convey into the mind several distinct perceptions of things, according to those various ways when those objects do affect them and thus we come by those ideas we have of yellow, white…"[133]

Here again it is difficult to ascertain whether Locke is using the term "perception" for bare sensation or for a meaningful sensation. The above statement of Locke implies two things: (1) the function of conveying to the mind several distinct perceptions belong to the senses; (2) what are conveyed by senses to the mind are "several distinct perceptions". In other words, perceptions are conveyed to the mind each one distinct from the other by senses, which further implies that the task of distinguishing one perception from the other is completed by "senses". Here we are again faced with the same difficulty. What faculty conveys to the mind "several distinct perceptions"? Senses or faculty of perception? Is there any distinction for Locke between senses and faculty of perception? Do "senses" signify certain operations different from mental operations, or do they signify elementary operations of the mind? Locke's language is confusing on this issue. From the above-cited lines of Locke one gets the impression that the task of making one sensation distinct from the other is completed by senses. In such case the function of understanding is unspecified.

Locke again confuses the meaning of perception in Book II, Chap. IX (see I of the Essay) by making three important statements about it:

(1) "Perception is the first simple idea of reflection."[134]

(2) "Perception is the first faculty of mind exercised, about our idea."[135]

(3) "In bare naked perception the mind is for the most part passive."[136]

Locke does not realise that these three statements suggest completely different things. The first suggests that perception is an idea distinguished

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[133] Ibid., p. 43.

[134] . Ibid., p. 73.

[135] . Ibid., p. 73.

[136] . Ibid., p. 73.

and defined; the second suggests that it is a faculty of mind; the third, that it is bare sensation.

One page 78 of the same chapter, Locke makes another important statement about perception: "Perception is the first operation of all our intellectual faculties and the inlet of all knowledge into our minds."

Perception, then, for Locke is the first degree and first inlet of knowledge and the first faculty of the mind exercised about our ideas; and in bare naked perception, the mind is for the most part passive. This means that perception is the passive function of the mind.

It is difficult to say what Locke's meaning could be when he talks about "bare naked perception" in which the mind is most of the part passive. Perception, according to Locke, is mind's simplest operation which is at the level of passive thinking. What is the role, then, of senses in Locke's system? Their function has been defined earlier by Locke as that of conveying "several distinct perceptions to the mind. Locke is not clear about his distinction between senses and the faculty of perception. When he says that "in bare naked perception the mind is for the most part passive," he seems to imply that the mind's passive function consists in receiving confused sense data, which is "bare naked perceptions" after which the mind requires further activity to arrive at well-defined ideas such as those of red or black colour. The function, then, of mind (understanding or soul—for Locke uses these terms interchangeably) is two-fold: (1) passive function and (2) active function. Through its active function it relates different perceptions in different ways to arrive at well-defined ideas. "Bare naked perception" is a state of mind which is the result of a co-ordination of sensible objects and passive thinking.

Here it is relevant to ask: what kind of function this passive function of the mind is? What does it mean to say that the mind is passive in "bare naked perceptions"? Locke must admit, either that some transformation is brought about in the sensible quality of the object by the mind in "bare naked perception," or no such transformation is brought about. If the former, then it implies some activity of the mind in its function of perception. If the latter, then it is pertinent to ask: what sense does it make to say that the mind simply receives the sensory-manifold without bringing about any change in them? For in what capacity is it called mind then? Locke seems to be misled

by his metaphor "tabula rasa" which he uses for mind before it comes to be furnished with impressions. Locke believes that perceptions are simply impressions, imprinted on the mind without calling any activity of the mind. The bare naked perceptions for Locke are the result of those impressions that are involuntarily[137] imposed on the mind. Since such perceptions do not necessarily involve volition, Locke concludes that they do not require active thinking. But this does not make much sense. Most part of our thinking is involuntary, whether it is employed about ideas of sensation or ideas of reflection. To call this great part of thinking passive thinking is not to define it clearly. Perception implies an ability of making distinction, which further implies judgment. When mind is said to perceive something it implies that it sifts confused sensory-manifold, and discriminates between different sensations with the help of certain principles, such as similarity, contrast, identity, etc. All this may be involuntary, and we may not all the time be aware of it. But it does imply activity of the mind and is certainly much more than bare reception of sensory-manifold, or impressions on a blank tablet.

Locke makes further confusion when he uses the word "perception" in the context of ideas of reflections. All ideas of sensation are perceptions for Locke. But perception is also an idea of reflection. And every perception, whether sensory or reflective, is an idea. When we analyse Locke's meaning we find that Locke uses the term "perception" for five different things:

(1) "Perception" is used to stand for an idea of sensation.

(2) "Perception" is used to stand for the simplest idea of reflection.

(3) "Perception" is used to signify the faculty of perceiving, the simplest activity of the mind.

(4) "Perception" is used to denote the receptive or passive state of mind.

(5) "Perception" is the first inlet of knowledge.

Locke's terminology becomes more inefficient on account of his ambiguous use of the term "perception". He uses the term equivocally. "Perception" is used by Locke both as a noun and as a verb. When he calls ideas of sensation and of reflection perceptions, the word is used as a noun.

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[137] Ibid.

But when he uses the word "perception" to describe the simplest activity of the mind, the word is used as a verb.

As an idea, perception is an object of knowledge. As a faculty, it is the subject of knowledge. Explaining how perception functions as a mental faculty, Locke says that it will be impossible for a thing to be perceived if mind (faculty of perception) does not take notice of it.[138] Locke's position amounts to this. It will be impossible for a thing to be perceived unless faculty of perception takes notice of it. In other words, the faculty of perception without being active cannot perceive. Locke here contradicts his earlier statement that "in bare naked perception mind is most of the part passive." Locke's confusion is due to the fact that he is not sure him-self whether perception or any other operation of the mind can be passive. He calls "perception" the simplest activity of the mind, and the first inlet of knowledge and the first capacity of mind. In Book IT, Chap I, Sec. 24, he writes: "The first capacity of human intellect is that mind is fitted to receive the impressions made on it either through the senses by outward objects, or by its own operation when it reflects on them."[139] As a capacity, by perception Locke either means a bare receptivity or a low mental operation. Locke seems to emphasise the former when he talks about perception as a faculty of reception of impressions through external sensible object, or from mind's own operations. But he seems to acknowledge active thinking as a part of perception when he insists that, unless taken notice of within, no perception is possible.

HEALTH OF THE SOUL*

When the soul is good and virtuous, loving the acquisition of virtues and desirous of attaining them and longing for the true sciences and for sound knowledge, then its possessor should associate with those who are akin to him and seek those who resemble him, and should not enjoy the presence of others or sit in their company. He should be very careful lest he associate with the wicked and the defective among the frivolous or among those who display enjoyment of disgratieful pleasures and commitment of vile deeds and boast of them and indulge in them. Let him not listen to these peoples' tales with interest, nor recite their poetry with approbation, nor sit in their

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[138] Ibid.
[139] Ibid., pp. 53-54.

company with delight; for sitting once in their company, or listening to one of their tales, or reciting one verse of their poetry would attach to the soul such dirt and filth as would not be washed away except with the passage of a long time and with difficult treatments. It could be the cause of the corruption of [even] the virtuous and experienced man and the seduction of the discerning knower and might lead to their infatuation--to say nothing of the youth who is growing up and the student seeking guidance. The cause of all of this is that the love of physical pleasures and of bodily relaxations is inborn in man on account of his imperfections. We are inclined to them and we covet them by our primitive nature and our original disposition, and it is only by means of reason's restraint that we keep ourselves from them, stopping at the limits which reason prescribes to us and contenting ourselves with what is necessary.

*Ahmad ibn Muhammad Miskawayh, Tahdhib al-,4khlaq [The Refinement of Character, Eng. trans. by C.K. Zurayk (Beirut: The American University of Beirut, 1968], pp. 158.59.

CHINESE ORIGIN OF THE WORD "PATCH" AND OF THE PATCH-WORK COSTUME OF THE SUFI

S. Mahdihassan

In the make-up of a personality dress plays such an important role that it seems to qualify the wearer. Thus a soldier is recognised by his military dress while the king has his robe of majesty. Arberry[140] observes that a Sufi, "practicing poverty and abstinence" wore coarse wool, when "Sufi became a nickname, derived from the Arabic word, Suf, wool," briefly as Mr Wool. However, Jesus, who personified saintliness above all, used to be clad in wool. Now during the time of the Sufi Ḥasan Baṣri there were "certain devotees who wore wool as an imitation of Jesus". And the elite among the Sufis adopted a costume of patch-work, called khirqah in Arabic. Arberry explains that "initiation into the Sufi mysteries was marked by the investiture of a special frock, khirqhh, symbolizing his acceptance into a tradition of Divine service mounting back, stage by stage, to the prophet Muhammad".[141] But, instead of khirqah being traced, stage-wise, to the Prophet, that he ever wore a costume to be characterised as the robe of saintliness or of Prophethood, can be openly questioned. Now lbn Sīrīn, a scholar, who died in A.D. 728, was a contemporary of Ḥasan Baṣrī. He used to criticise the latter on his wearing wool. lbn Sīrīn maintained that, as a Muslim, "he preferred to follow the example of our prophet who clothed himself in cotton," rather than in wool. Thus it appears that the Prophet did not preferably dress himself in wool and probably had no special cloak as khirqah. A woollen cloak can, however, be traced to Jesus, if not even earlier, so that khirqah would appear to be a pre-Islamic costume, indirectly supporting that Sufism itself has a longer past.

We now turn to China for the forerunner of the patch-work cloak, the khirqah. In' a primitive society death-rate among children has always been high and parents were constrained to adopt all means to assure the survival of their issues. One such device in China can be termed "magical dress". The

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140 A.J. Arberry, Sufism (London, 1950), p. 35.
141 Ibid., p. 84.

mother of the child would go, door to door, begging for a piece of cloth, when each donor would offer one with good wishes for the long life of the child. These pieces of cloth, or patches, to use the correct English word, would contribute to the making of a patch-work costume when the dress, as a whole, symbolises the integration of the good wishes of a number of families. The emphasis is easily shifted to the good wishes which the patch-work incorporates. The Chinese term for such a dress is "Pai-Chia-I," literally, the hundred family (donated) dress. Thus what incorporates the good wishes for longevity, of so many people, becomes a "magical dress" of immortality. Sufism, being a cult of immortality, the Sufi would naturally prefer a patch-work as his overall cloak.

Redhouse[142] translates the word khirqah as rag, tatter and also as dervish's cloak. But Richardson's Dictionary,[143] printed as early as 1777, best renders khirqah=patch, for in English patch= piece of cloth, rather than a rag, or a torn strip, as Redhouse has rendered it. Thus Khirqah is a cloak of patch-work and signifies a "magical dresss" of longevity. It thus becomes the prerogative of an immortal as Sufi to wear such a cloak of immortality. The custom is clearly an import from China. It has been discussed before and aptly illustrated with coloured illustrations of Chinese origin.[144] The etymology of the English word "patch" remains unknown. Dictionary renders it primarily as a "piece of cloth". When a lay observer sees a patch-work, termed "Pai-Chia-I," he can easily derive the word "patch" from it for a "piece of cloth". Patch becomes the unit of a patch-work dress as the real entity. Besides the device of dressing a child in a cloth of patch-work there are others in China by which the longevity of the child is aimed at.

SHOULD A MUSLIM PERFORM HAJJ AGAIN AND AGAIN*

Of these wealthy persons many are greatly fond of spending money on Ḥajj. They go on Ḥajj again and again, and sometimes do so leaving their neighbours to starve.

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[142] Sir James W. Redhouse, Turkish and English Lexicon, Constantinople, 1890, reprinted Beirut, 1974.

[143] J. Richardson, Dictionary of Persian, Arabic and English, Oxford: CIarendon Press. 1777.

[144] S. Mandihassan, "The Garb of the Sufi and Its Significance," Iqbal (Lahore), Vol. VIII (1960), No. 3, pp. 72-82.

'Abd Allah b. Mas'ūd has rightly said that during the later ages, the number of those who go on Ḥajj unnecessarily will become very large. Journey will be easy for them, a'd they will have plenty of money. Yet they will return from Ḥajj empty-handed and without any spiritual gain.

While these people will be travelling in deserts and wildernesses, their next door neighbours will have been left in misery, without any help or consolation from them.

Abū Naṣr Tama relates that a person came to Bashar b. al-Ḥārith and said: "I intend to go on Ḥajj. Can I be of any service to you?"

Bashar asked: "How much are you going to spend on this journey?"

"Two thousand dirhams," said the intending pilgrim. Bashar then asked: "What is your motive for this Ḥajj?—Show of wealth? Love of the Ka'bah?"

"God' pleasure," was the answer.

"Well," said Bashar, "what if I tell you a way to win God's pleasure while remaining at home all the time? Are you prepared to do something which will ensure you God's pleasure and will cost the same two thousand dirhams?"

"Certainly," came the prompt answer.

"All right!" said Bashar, "go and distribute this money among ten persons who may be in debt… Or if you prefer that, give the entire sum to one individual, because to gladden a Muslim's heart, or help a helpless person, to assist someone in his misfortune, or to strengthen the weak, is much better than performing a hundred optional Ḥajjs. Go and do as I tell you, or frankly admit to me whatever is in your heart."

The man at this confessed: "O Shaikh! to be honest with you, my heart is set upon this journey !"

At this Bashar b. Ḥārith smiled and declared: "When wealth is acquired by dirty or doubtful means, your evil self demands that its desires should be fulfilled with this money, under cover of seemingly virtuous deeds. But God Almighty has taken a pledge that He will accept only virtuous deeds of those who fear Him sincerely."

•Imām Ghazālī, *Iḥyā' 'Ulūm al-Din*, III, 352..

PAKISTAN: A CRISIS IN THE RENAISSANCE OF ISLAM

Ejaz Faruqi

It has been almost thirty years since Pakistan came into existence. Nevertheless, it is still being debated: What is the purpose of Pakistan's being? What motivated the Muslims of the Indo-Pakistan subcontinent to struggle for the creation of a separate State? Were these motives religious, economic, political or social? Are 'ulamā' alone entitled to legislate in an Islamic State? If this be so, then what is the position of the elected representatives of the people? These questions and many others have been debated for the last thirty years, but these debates, instead of clearing the mist, have created more confusion and people are asking questions: What is the raison d'etre of Pakistan? What should be the direction of their life? What should be their attitude in the face of the onslaught of Western knowledge, arts and technology? What should be the outline of Islamic character in the light of new psychological discoveries? What are the agreements and what are the differences between Islam on the one hand, and democracy and socialism on the other? Should the practical organisation, in this twentieth century, of political, economic and social system of Islam be the same as fourteen hundred years ago? If this be so, then what is the meaning of evolution? Is Pakistan a nation? If so, then what is the nature of its relationship with Muslims in the rest of the world? If Pakistan is a nation, then what is its national dress, language and culture?

It is a fact of history that Pakistan is an ideological State and is not the product of ethnic or geographic compulsions; otherwise all the Muslims of the Indo-Pakistan subcontinent would not have participated in the struggle for Pakistan when it was obvious that one-third of the Muslim population of the Indo-Pakistan sub-continent would have to live in India and would remain deprived of the citizenship of Pakistan. If this reality is kept in view, then we shall have to look at the Pakistan Movement in the background of Islamic history, otherwise we shall depart from the fundamental directions of this movement and shall be entrenched in cliches, distorting the history of the Movement.

Islam is a religion, which, on the one hand, systematises the activities of both the individual and the society, and, on the other hand, encompasses both physical and spiritual aspects of human life. This fundamental point has to be kept in view for correct understanding of Islamic history. According to Islamic thought, there is no contradiction between spiritual values and this-worldly success; politics and religion cannot be placed in separate compartments. The principles of interpretation of history, which are prevalent in the West, will have to be modified and expanded to interpret Islamic history, because the Western mind is prone to divorce politics from religion. Historically also, we can appreciate this fundamental difference between Western and Islamic way of interpretation of history. Whereas Prophet Muhammad translated his concept of an all-encompassing religion through the establishment of an Islamic State, the Christian world has not inherited any such tradition from Jesus Christ. It is in the background of this Islamic tradition that, whenever Muslims suffered political or military defeat, their faith in Islam started faltering and they needed spiritual reassurance. Such events directly affected the evolution of Islamic thought through different periods of Islamic history.

In this brief paper, I shall only touch upon a few significant landmarks in the evolution of Islamic thought in order to analyse the problems facing Pakistan as an Islamic State.

By and large, the life style of the Arabs was tribal and pastoral. With the conquest of non-Arab lands, Arab Muslims were con-fronted with a different social structure based on agricultural system. With the change in the means of production, the dimensions of political and social structure of the new Islamic State extended beyond known tribal and pastoral system and there arose an impelling need to interpret the principles of Islam in order to cope with the new social and political situations. Fiqh is a compilation of such interpretations. This was a creative effort which opened new horizons of knowledge. But, with the passage of time, this creative effort was replaced with blind adherence to tradition. Rigidity and narrow-mindedness took the place of flexibility and broad vision. This closed the doors of intellectual creative effort. But this could not prevent the endless changes which were taking place in society on account of interaction with social systems prevalent in the conquered lands. This created a situation of perpetual struggle within the Muslim society. On intellectual level, Muslims were divided into two

groups. On one side were the 'ulamā' who practised rigidity in their adherence to tradition and preached an interpretation of Islam which was out of tune with the demands of time. They could not, therefore, offer any viable solution to the problems faced by the Muslim society as such. On the other side was the intelligentsia who encouraged an analytical and sceptical approach in the intellectual sphere. This attitude was bound to work against the interest of rulers and elite who sought the support of 'ulamā' in order to prevent any change in the status quo. The tradesmen, the peasants and the artisans, however, supported that intelligentsia who stood for free thinking, as their own prospects improved with change in the social structure. This situation was replete with perpetual struggle. The rulers and the elite committed atrocities on their opponents with the support of 'ulamā' with the result that the natural evolution of Islamic thought was stunted. Those very principles of Islam which, through their application, released immense intellectual and physical energies of Muslim society for creative effort, became moribund on account of rigidity and lack of a transcendental vision. This situation was responsible for the polarisation of vested interests, and led to frequent sectarian riots and civil wars. This also weakened the political and economic structure of the Islamic State.

The Mongol invasions on the Islamic State dealt a final blow to whatever outward political unity of Muslims existed. This led to a rapid disintegration of the Islamic State. After the Mongol invasions, Muslims could not muster their political power unitedly and were divided into smaller sultanates and empires which remained at daggers drawn with each other.

In this period of political disunity, the leadership for spiritual unity of Muslims passed from the hand of 'ulamā' to those of Sufis. The main reason for the popularity of taṣawwuf was its flexibility and absorption of local influences. It emancipated Muslim thought from the rigidity, practised and preached by 'ulamā, and gave it a cosmopolitan outlook. But, in this process, so much of local and, to a certain extent, pagan influence was absorbed that Muslim thought lost its distinctive character and became a conglomerate of Islamic and un-Islamic elements.

This situation also prevailed in the Indian Muslim society during the period of Muslim rule. Traditional Islam was confined to mosques and religious madrasahs. Outside these mosques and madrasahs, the social spectrum

presented a cosmopolitan picture which was strengthened by ṭarīqat practised by Sufis. Muslims had absorbed Hindu influences both in their thought and in their culture and civilisation.

This was the shape of Islam in practice in India when some scholars rose to revive the pristine spirit of Islam. Maulvī 'Abdul Ḥaqq Dihlavī, a disciple of Khwājah Baqī Billāh, reverted to the original sources of Islam, namely, Qur'an and Ḥadīth, to reinterpret its basic principles, to expunge extraneous matter and to restore Sharī'ah to its rightful place in shaping the Muslim society. In this movement, the name of Shah Walīyullāh stands out above all. His well-known book, Ḥujjat Allah al-Bālighah, is a revolutionary document to emancipate Muslim thought from the rigidity of filth and to reinstate ijtihād for the purpose of the interpretation of fundamental principles of Islam. He also took part in Indian politics and invited Aḥ mad Shah Abeliān, the Afghan ruler, to invade India in order to reduce the emerging power of Marhattas at Panipat in 1761. This movement produced a soldier in the person of Sayyid Aḥmad Shahid Barelvī who undertook to translate the political goal into reality, namely the establishment of an Islamic State. It is interesting to see that Sayyid Aḥmad Shahid Barelvī chose, for the establishment of an Islamic State, that area which, later on, became part of Pakistan and was, at that time, under Sikh rule. The failure of the movement of Sayyid Aḥmad Shahid Barelvī was a great set-back to the attempted resurgence of Muslim political power in India. There were similar movements in Bengal and they also met the same fate.

Another disciple of Khwājah Bāqī Billāh, namely, Shaikh Aḥmad Sarhandī, known as Mujaddid Alif Mani, undertook the onerous task of ridding taṣawwuf within the bounds of Sharī'ah.

He attacked the concept of waḥdat al-wujūd which had become the bedrock of taṣawwuf and was instrumental in absorbing pagan influences and personifying God in the person of the inurshid.

Instead, he presented the concept of waḥdat al-shuhūd which was in conformity with the Islamic abstract concept of God.

With the failure of the War of Independence in 1857 and the annexation of India to the British Empire, the political climate in India changed to the detriment of Muslims. Muslims became victims of both the British and the

Hindus, and it was then the question of revival of Muslims as a separate social entity.

In these unfavourable circumstances, Sayyid Aḥmad Khan undertook the task of rehabilitation of Muslims in the new political climate. In order to dispel any doubts of disloyalty of Muslims and to assure the British rulers of complete acquiescence of Muslims, Sayyid Aḥmad Khan presented a picture of apologetic Islam and advised the Muslims to acquire and practice the values of Western culture and civilization, which, he claimed, were in accordance with the teachings of Islam. This produced a section of Muslim intelligentsia who looked to the West for inspiration and who adopted the Western way of thinking and life-style. They viewed Islam as represented by the fundamentalists and relegated the role of Islam to the sphere of prayer and worship in order to have the freedom to restructure their society on Western values. The concept of Islam, presented by Sayyid Aḥmad Khan, weakened the movement of Shah Walīyullāh for the renaissance of Islam. But the Pan-Islamic Movement of Jamāluddīn Afghani again germinated the idea of political power of the Muslim world. On the intellectual plane, AIlāmah Iqbal gave a new impetus to the movement for the renaissance of Islamic thought which had suffered a set-back due to the compromising attitude of Sayyid Aḥmad Khan.

Iqbal had imbibed the pristine spirit of Islam and also had an intimate knowledge of Western thought. Iqbal appreciated the social, political and economic changes taking place in the twentieth century and realised the need for a reinterpretation of Islamic thought to meet the new demands of time. He emphasised the importance of ijtihād and conceded the right of lima' to the legislative assembly.

In the meanwhile, a new development took place. Successful Communist Revolution in Russia set in a new chain of thinking in a section of the Indian Muslims, who propagated an atheistic society structured on Socialism. Previously, Islam was faced with a non-Sharī'ah taṣawwuf which taught that the Shar'īah was not necessary for spiritual experience. Now, Islam was faced with an atheistic system which claimed that religion was an obstacle in the way of organising a truly moral and ethical society.

This was the intellectual scene which the Muslims of Pakistan inherited. They followed the Western model which ran counter to the aspirations of the

people. Although Pakistan was proclaimed as an Islamic State, the ʻulamāʼ considered that this was only in name and exhorted the people to reshape this State on the e traditional concept of Islam. This conflict between Islam and modernity has continued to this date since the birth of Pakistan. People are allured by modernity—this age of science and technology, but are also devoted to Islam. They swing between the Westernised elite and the ʻulamāʼ.

Ill-luck would have it that no substantial work has been done on the reinterpretation of the principles of Islam and their application in the present-day Muslim State, with the result that tension and conflict have continued. There has, however, been some change in the stand taken by the ʻulamāʼ. After the birth of Pakistan, the ʻulamāʼ demanded that a supreme body of highly qualified ʻulamāʼ should be created to ensure that no law repugnant to the Qurʼan and the Sunnah was enacted and that no law should be enforced unless approved by this supreme body ofʻulamāʼ. In practice, the ʻulamāʼ wanted to deprive the representative national assembly of the right to legislate and did not concede to it the right of ijmāʼ. With the passage of time, the ʻulamāʼ have realised that they were going against the tide on this issue and have recognised the supremacy of the National Assembly. They, themselves, are now seeking membership of the National Assembly as elected representatives of the people. Thus, they have de facto conceded the right of ljmāʼ to the National Assembly. We have to see whether they will also move to the position of permitting ijtīhād and conceding that fiqh is not the only and final interpretation of Islam. On the other hand, a section of the Westernised elite has realised the imperative of application of the principles of Islam, but they have yet to discover these principles. There is still a large section of Westernised elite who still cherish the Western model. The breaking of a section of Westernised elite from secular position to Islamic way of life is an interesting development and may be a precursor to the ultimate renaissance of Islam in the twentieth-century Pakistan.

To sum up, we are living in a triangle. On one side are the Fundamentalists, the rigid tradition-bound ʻulamāʼ who do not recognise that there is any need for the reinterpretation of Islam. On the second side are the Westernised elite for whom Western democratic Nation-State is the model and who are prepared to re-cognise Islam to the extent of religious ritual only. On the third side are the Socialists who consider an atheistic society as their model. Muslim masses are encircled within these three sides of the triangle. Some

intellectuals are standing on the three corners trying to work out some compromises on the superficial level. But there are few who are committed to the cause of reinterpretation and renaissance of Islam. Nevertheless, I can see clearly that Islam is the only destiny of Pakistan. Otherwise, there is the deluge. Islam has been a moving force, to whatever degree it may have been, in our Muslim society for the last fourteen hundred years. Psychologically speaking, it is an archetype embedded in our psyche. We can only destroy ourselves to get rid of this archetype.