

SECTION III. (*Continued*).

CHAPTER XXXV.

VIBRATION.

Résumé.—The form of the logia pertaining to āk ā s h a, etc.—Reason for the form.—Objections.—Answers.—Vibration, the manifestor of qualities.—Expansion and contraction, action and reaction, in-breathing and out-breathing, s p a n ḍ a and s p h u r a ṇ a.—Logia connected with other substances and qualities.—Relations with space, time, m a n a s and b u d ḍ h i.—The conditions and laws governing vibration.—The physiology of human vocal vibrations.

In the preceding chapter we dealt with the two less-known ṭ a ṭ ṭ v a s and their logia. The logia relating to āk ā s h a are, 'I-This-Sound-Not,' 'Sound-I-Not,' 'Not-I-Sound' and 'Sound-Not-I.' Here, in the first logion, the 'this' takes the place of āk ā s h a, while sound is obviously the attribute thereof.

Why was not the logion worded like thus, viz., 'I-Āk ā s h a ful-Soundful-not'? Āk ā s h a-possessing, sound-possessing, would have been good and proper adjectives for the Self, would they not? (The superimposed 'identity'

would run better and more feasibly by means of the idea of possession than that of absolute identity, and especially with reference to the *quality*, sound, etc., which is patently the *object* only of the subject and so almost impossible to *identify* with it, while the *substance* ākāśha *may* somehow be thus even identified with I, for we speak of 'my body' as 'I'?

True, but the use of the affix maṭup (changing, by grammatical rule into vān, to make ākāśha-vān, śhaḍa-vān, etc., and having the significance of the affix 'ful') while making up good and proper adjectives would have been against the spirit of the logion. It would have indicated on its face a distinction, a separateness between the possessor and the possessed, whereas the purpose is to indicate and feel identity (and not mere possessorship; and it should be remembered that the guṇa, or quality, sound, etc., cannot be ideated apart from substance and movement, and, indeed, for purposes of *manifestation* and *cognition*, in the cognitive aspect of the ideation, has even to come first).¹

¹ This is why in the *Sāṅkhya*, the 'qualities,' sound, etc., are called the *tanmātras* and are said to *precede* the *bhūtas* or *taṭtvās* and the *indriyas*, for the *qualities* are the *determinants* of the substance to the *cogniser*, and Indian cosmogony proceeds from Consciousness, the

Another question. Why use the word 'this' at all in the first logion; even without it, the logion would have been complete enough and would have implied the 'this,' as 'I-Sound-Not'? The answer is, because, here, sound and I are both of the nature of *kriyā*, action, function, and are both present as such in the 'this.' Indeed, it might be said as another extreme, on the opposite side, that the proper form of the logion would have been 'Sound-this-not,' for sound as quality corresponds with, is first ideated by, and is regarded as identical with the Self, and may therefore well take the place of the Self in the logion. For this very reason, the *logia* connected with the description of *param-āṇus*, 'super-atoms,' are 'Sound-Ākāśha-Not,' 'Not-Ākāśha-Sound,' 'Sound-Not-Ākāśha,' etc.

It should be noted here that all *guṇas*, qualities, are manifested by means of *spanda* and *sphuraṇa*. *Spanda* is the *abhīrṇa*, vibration, of atoms, that is to say, their *upakārya*,¹ which takes place in them of itself,

Cogniser, outwards, instead of the reverse. The 'ideation' of the quality determines the vibration, and also the substance.

¹ We have had *upakriyā* before, in chapter xxiv. This *upakārya* seems to be in the atom what the other is in the *jīva*.

independently. We thus find that sound arises by many vibrations of one atom. Touch, etc., also arise, in every atom, in the same way. The atom is smaller than the smallest; it cannot be perceived by the eye or the ear. And yet, by means of vibrations, sound, etc., arise or exist therein¹ (which are cognisable by our senses). We thus see that the *anu-varḍhana*, growth, development, evolution of everything depends upon and is an affair of *spanda*. The absence of *spanda* is *sphuraṇa*. It may be said that *kriyā* is universal and incessant, and that there are atoms within atoms, and so *sphuraṇa*, as cessation of activity, is

¹ The sentence seems to require a little metaphysical justification. If, as often said before, it is true that substance-quality-movement are inseparable, what can be meant by saying that an atom is too small to be heard, etc., without vibration? The substance-atom, the movement-vibration, and the quality-sound are coeval, inseparable in fact and in consciousness; how can we speak *as if* it was possible for an atom to exist without movement and quality and that *then* it would be *or is* too small, etc.? The justification is to be found in the shifting of thought between a subtler, the cause-plane, and a grosser, the effect-plane and taking the substance-aspect of the former and the quality-aspect of the latter.

impossible and is naught. But on the other hand, a beginning and an end are also necessary for every *spanda* (and these obviously imply a cessation of what preceded, however infinitesimal in time and space that cessation might be), and so the necessity for the appearance for *sphuraṇa* also is restored. *Sphuraṇa* is the *praṭi-kriyā* or reaction to the *kriyā* or action of *spanda*. In other words it is the *pra-sambhava*, the reduction from possibility into actuality, of the 'actuality' of inactivity, the *kriyā* of *niṣhkriyā*, during the existence or manifestation of action. Briefly, it is a matter of the necessity of both. But, surely, there is a difference between *praṭi-kriyā* and *niṣhkriyā*, reaction and inaction, as between positive and negative, being and non-being; how can the two be identified? This way; just consider that inaction, cessation from activity, is the seed and root and commencement of reaction; so much so is this the case that inaction has been said to be the substratum and supporting background of both action and inaction. Hence, in an exposition of *spanda*, *sphuraṇa* appears as the originator of reaction as well as action. Because there is no distinction between producer and produced, originator and originated, cause and effect, therefore is *niṣhkriyā* declared to be both active and reactive. Hence the

declaration that the world vibrates and strains, 'spandate and sphurate,' inbreathes and outbreathes, in every atom.

Spanda, vibration, corresponds to A; sphurana, strain (?), to U; and sphulana, swelling, expansion or circular movement (?), the negation of both, to M. As the *Brahma-sūtra* says: By spanda and sphurana is sphulana, and that is jagat, the 'moving world.' Or as the *Mīmāṃsā*: The vyavahāra behavior, activity, of spanda and sphurana is karma, movement, action.¹

¹ Modern Samskr̥t has lost the distinction between spanda, sphurana, and sphulana. The *Ākhyāta-chandrikā*, a thesaurus of verb-roots, puts them all together, sphurati, sphulati and spandate, as meaning spandana, striving. In current works, all three are indiscriminately used (sphulati is less common) in the sense of striving, struggling, writhing; sphurati is also used in the sense of throbbing, palpitating; and again of sparkling, twinkling; and finally of shining out or appearing in the mind as an idea. Another form, sphurate, has the sense of "being able." It is obvious that all these senses are allied and pass from one to another gradually. Sphulana has at present more the significance of puffing, 'swelling' up and down, spherical expansion and contraction.

In this condition of things the translation of the text is naturally only tentative, and has been made

Atoms may be 'experienced,' perceived, by Yoga. And the counsel is therefore given to aspirants to strive to so 'experience' them.

with reference to possible similarities in modern thought. 'Vibration' needs no recommendation. Sphurana or 'strain' may be regarded as the condition of the neutral moment or point, on 'both sides' of which the vibrations takes place, the turning-point between action and reaction. Sphulana seems to be the 'breathing' of the atom, if it is regarded not as a vortex-ring, but as a vortex-bubble. Sphulīṅga, spark, seems to be connected with sphulana, the result of excessive swelling apparently being the radiating off of sparks. Mrs. Besant's *Occult Chemistry* will help the reader in making up his opinions as to the sense of the text with reference to the various kinds of movements of the atom.

In the human being, regarded as an atom-unit for purposes of analogy, we may discern many currents up and down and also round and round with intervening pauses, on various planes, physical, etheric, astral, mental, etc. The skeleton of the human trunk has a resemblance to the atom as pictured in *Occult Chemistry*—which picture, by the way, represents it not as a ring but as a spheroidal cell or wire-work ball. Breathing regarded as physical sphulana, is subdivided into inspiration, expiration and retention. The day is similarly subdivided for purposes of sandhyā. And so on.

On the perception of atoms, exact knowledge arises as to the precise vibrations, strains, etc., whereby the sense-qualities are produced, and this knowledge leads on to the successful performance of the work (of the hierarchs).

As there are four logia connected with ākāśha, so are there four for each of the other elements, vāyu, tejās, āpas, pṛthvī. Thus: 'I-this-touch-not,' 'touch-not-I,' 'I-not-touch,' 'not-I-touch.' By the energising of these logia, touch comes into manifestation as the quality of vāyu. In connexion with tejās, in the logia, 'I-this-rūpa-not,' etc., the word rūpa means the (specific, differential) object of the existing organ of vision, the eye;¹ the other logia are 'Form-not-I,' 'I-not-form,' 'Not-I-form.'

We have thus seven logia, which also are regarded as root-logia. They may be co-ordinated thus (from a new standpoint). Whatever is

¹ This specific statement seems to be made in order to distinguish the connotation of rūpa, here, 'visible form including color,' from that more general sense of the word 'form' which may be said to attach to all substances, cognisable by other senses than the eye also—as in the metaphysical *Veḍānta*-phrase nāma-rūpe, name and form, both being embodied in the objects and being expressible in the terms of any and every sense-organ.

found by experience as 'between' the I and the 'This'—that is time. This may be observed even in the pronunciation of every letter-sound. In such pronunciation, the praḍeśha, indication or determination (? or location) of the work that is done by the extreme tip of the tongue, by its front part, its middle and its root—this successive determination (? or location) itself is time. It comes between 'I and This,' between 'This and not,' and between 'Not and I.' The condition of, or during, the pronunciation of Not, I, This, is also included in that (Not, I, This?) and here we have the origin of time (?). Time existing, the existence of space is apprehended by means of work or motion; (they are the necessary conditions of all experience). Again, that wherein I, This and Not are placed, where they are persistently believed to be, on arrival at or in which, I and This cease to manifest or to be perceived—that is deśha or space, shūnya or vacuum, of the nature of Negation, wherein I and This move or are apprehended.¹ After space and time have thus originated (i.e., begun to be apprehended), anyat,

¹ All this context is very subtle and elusive, as is but natural when we are dealing with such 'emptinesses,' abstractions, as space and time. In this real abstract character, of course, they are simultaneously manifest or non-manifest, as we like

another, other, appears by that same Svabhāva by which time and space are projected. 'I-this-other-not' is the appurtenant logion. Here 'I' is space, 'this' is time, and 'other' substance there is 'not' than these. By the operation of this 'other,' there arises 'I' within 'I,' 'this' within 'this,' and 'not' within 'not.' The I within the I is manas. Because of this fact is manas counted among the dravyas. And, further, because of this interiority is it the function of manas to prevent simultaneous cognitions (as of a doorkeeper who allows only one visitor to pass in at a time). Because there is a svabhāva, a nature or character, present in the I, therefore is an interiority put into it, and in-ness (implying the opposing out-ness)

to think about it, together with equally empty 'motion.' But when they are semi-concrete, doing duty for buddhi and mahat, some slight succession is wanted, in manifestation, and yet is difficult to make out, for a mere unity cannot manifest. Therefore the immense travail of thought, and the turning and turning about. Because of this, the *Purāṇas* find it so difficult to decide precedence between the Trinity, especially, Shiva and Viṣṇu. शिवस्य हृदयं विष्णुर्विष्णोश्च हृदयं शिवः । and Brahṁā is now the father and now the son, etc., of either of the other, the three corresponding to time, space and motion.

implies non-simultaneity, non-oneness. Antah, 'within', 'inner', is equivalent to, or implies antara or interval. Hence manas cannot apprehend things simultaneously, as one, but does so in succession, as separate. But, on the other hand, simultaneity or oneness is also in the Svabhāva, and Svabhāva and 'I' are not separate but one and the same; therefore the whole I-ness of the I is buddhi whereby simultaneity of cognition (knowledge of many things as parts of one and as one, i.e., as strung together by the I-ness, the unity, of the I into an unbroken continuance) arises.¹ The appearance

¹ The reader who is familiar with theosophical views as to the seven principles of man, the permanent atoms, the nature of the mental and buddhic atoms, the buddhic web of life, the gradual transfer of the centre of consciousness from one plane and body to another, the limitation or expansion of consciousness by such transfer, the lower concrete mind with manas attached to kāma, the higher abstract mind with manas attached to buddhi, the monadic triad of ātma-buddhi-manas (at present connected with the three planes of ākāśha, vāyu-agni), to be later located in anupādaka-ākāśha-vāyu, and then again in ādī-anupādaka-ākāśha, etc., etc.,—will find much suggestion for thought and explanation of 'whys' in the text here.

of simultaneity or unity in that which is not synchronous or one is *buddhi*, as the *Nyāya* says. On the foundations of these, space, time, *manas* (standing for *mahaṭ*) and *buddhi*, is the whole world built.

Out of and in these all the various substances and qualities arise successively one out of another. Thus 'I-this-sound-not' is a complete logion. In this there takes places the *yoga-vibhāga*, conjunction-division, varied combination, of the nature of 'sound-not-I' (?). Because of this there appears *prayatna*, effort, volition, in the Self. And because of the effort, there arise *anu-vartana* and *pari-vartana*, persistence and change, permutations and combinations (in the atoms?). The result of this is, finally, that *vāyu* arises as the carrier or vehicle of sound. And the quality of sound itself, at the time of spreading forth or being 'carried,' becomes transformed into the quality of touch, by the *spandā* or vibration of sound. So out of the vibration of touch, visibility; and so, successively, taste and smell.¹

It seems that what is here called *buddhi* and *mahaṭ* (*manas*) is called *mahaṭ* and *ahankāra* in the current *Sāṅkhya*.

¹ Metaphysics and physics are obviously brought very close together here. One almost feels that the long-sought goal of "reducing to psychical elements,

The *spandā* or vibration from which, and the substance by the vibration of which, something new results, a new substance or a new

all physical phenomena" (Max Verworn, *General Physiology*, p. 38, translated by Lee) has been reached. But it is a case of only 'feeling,' and there too 'almost.' The break of the connecting tradition makes it nearly impossible to understand clearly the sentences of the text. It is only the modern ideas of science and the views of Theosophy that help one to make 'guesses at the true meaning' in such elusive portions of the work, which, by reaction, help one to understand the 'whys' of Theosophy and science better. It is a case of mutual help.

The changes rung here, on the words of the primary logion, in order to deduce from it all psychical and physical phenomena are very subtle and I have, no doubt, often failed to catch and reproduce the true meaning of the author. I can only hope that some reader, more richly endowed with intuition and the *buddhi* which sees the unity in the diversity, may be more fortunate in fixing the true sense.

As to the successive development of the *dravyas* and *guṇas* one out of another, the metaphysical deduction may be put as below, as one way: In seeking (from the empirical standpoint of the successive) to define to itself 'What am I?' the Self dons a veil of that most tenuous and filmy matter

quality—we have a duality here, *viz.*, the previous vibration and the product of the vibration. A *va*stḥā, condition, state, comes from or arises out of vibration and from vibration arises the succession of two, three, four, etc. Therefore is it said that all is produced by vibration.

which may be called ādi-ṭaṭṭva possessed of the quality of mere 'configuration,' 'geometrical' or archetypal forms, the next remove after the first pure mere 'objectivity' or 'this-ness' of Mūla-prakṛti. But 'almost' simultaneously with this identification of the I with a *film*, the need for a contradistinguishing 'this' appears. Nothing can be determined without something else from which it is to be distinguished. Therefore the anupādaka-ṭaṭṭva appears as a foil, the reticulation in the plasm. But yet again a connecting link, by the medium of which the two may be held in contradistinction and yet connexion or juxtaposition, is wanted. Therefore ākāśha appears as *manas* or *ahaṅkāra*; as nucleus amidst plasm and reticulation. So we have ātmā-buddhi-*manas*. And each successive appearance must be, can only be, *out* of the previous one, by a differentiation a 'heterisation,' 'othering.' And so the gradual descent of the 'triplet,' and a corresponding ascent. By another necessity, each previous plane needs, produces and uses the next one as a carrier or vehicle, just as the soul needs a body. See the *Science of Peace*, p. 295, 296 and footnote in Sec. VI, *infra*.

Vibration arises in ākāśha because of the presence of the Self in it; and it does so under a fixed law that such a vibration shall take place in such a *ṭruti* or moment (a definite measure of time), or from such a moment to such a moment. There is also another law, *viz.*, that this is the *va*stḥā, condition, limitation, of this and this vibration, in such and such a manner (?), and again, a *na*va¹stḥā, absence of finality or definition by means of such (another) vibration.¹

The universality of vibration has been declared everywhere. As the *Brahma-Sūtra* says: Vibration only is the manifestation of *kriyā*, action. And therefore is it said in the Science of Grammar: Such a *śabḍa*, sound, is produced by such and so much of a vibration. The number of vibrations is the principle or secret of

¹ The presence of the Self causes vibration, through *prayaṇa*, as explained above, a little while ago. The periodicity of vibrations is obvious. The next very vague sentence seems to mean that any particular substance retains its definite nature only so long as the atoms concerned are vibrating in a particular manner, and that when they begin to vibrate in a certain other manner, it loses its definiteness and the whole mass of it passes into the so-called 'critical' stage intervening between two definite forms.

the production of all sounds. By so much vibration we have *ḍhvaṇi*, inarticulate sound; by so much *spashta*, articulate, clear; by so much their *upanyāsa*, juxtaposition, composition, collocation, placing and spreading out one near and after another (?). This very vibration, when it takes place in the pronunciation of letters, *i.e.*, human speech, is called *prayaṭna*, (the technical 'vocal effort' of Samskr̥t grammar). As the *Shikṣhā* says: *Prayaṭna* is the vibration of the *kamala*, 'lotus,' nerve-plexus, (the *arṇikā*-plexuses mentioned before). As is the vibration of the *kamala*, rapid or slow, such is the quality of the sound, sweet, soft, harsh, etc. Because of the *alpaṭva*, fewness, smallness, finer or subtler quality, of the atoms used in the formation of the bodies of women and the greater rapidity of the vibrations of their *kamala*, and the greater (number or range of) *śabḍa-spanda*, sound-vibrations, the feminine voice is generally soft-toned. Of course there are many women too whose voices are not soft; in their case the vibrations are not rapid (enough). The voices of children may be usefully studied in this connexion, for a clearer knowledge of the vibrations of sound.
