

ALEXANDER BRYAN JOHNSON'S
COPERNICAN REVOLUTION

by |

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CONTENTS

CHAPTER	PAGE
Acknowledgements	iii
Introduction	1
I. Words, Objects and their Relation: The Early Conception	13
a. The Contents of Creation as Revealed by our Senses	15
b. Words, Language and the Problem of Generality	49
c. Verbal Meaning, Sensible Meaning and the Relation of Reference	68
II. Language as a Tool in the Acquisition of Knowledge	87
a. Language and Linguistic Principles	87
b. Sensible and Verbal Knowledge	106
c. Language, Communication and the Power of Description	120
III. Mental Organization, Intellections and the Significance of Verbal Knowledge	130
Conclusion	156
Bibliography	158

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INTRODUCTION

The early American philosopher Alexander Bryan Johnson, born in Gosport, England in 1786, is said to have anticipated the ideas of Ernst Mach, Charles Sanders Peirce, P. W. Bridgman, Ludwig Wittgenstein, Moritz Schlick, Rudolph Carnap, C. K. Ogden, I. E. Richards, Alfred Korzybski and the entire school of logical positivism.¹ Johnson was himself convinced that the recognition of his insights into the philosophy of language, which he originally presented in public lectures before the Utica Lyceum in 1825, and later organized into a book titled The Philosophy of Human Knowledge, or, a Treatise on Language, would "ultimately accomplish a great revolution in every branch of learning."² Revolutionary developments in the philosophy of language, however, are usually attributed to the independent efforts of the logical positivists, the pragmatists, the ordinary language school and other contemporary groups, but curiously enough never to Johnson's work; in spite of three subsequent revisions published under different titles, it was ignored by his contemporaries and remained in oblivion for more than one hundred years until resuscitated by David Rynin in recent times. Thus August Comte, the French positivist, refused to consider

¹David Rynin, "Introduction," in Alexander Bryan Johnson, A Treatise on Language, ed., David Rynin, (Berkeley: University of California Press, 1947), pp. 20-23. Charles I. Glickberg, quoted in David Rynin ed., A Treatise on Language, op. cit., (1959), rear cover.

²Johnson, A Treatise on Language, ed. David Rynin, (Berkeley: University of California Press, 1959), p. 40 (Lec. I, par. 14).

Johnson's work and submitted it to one of his disciples for examination.¹ Of the first book Frances Wright remarks: "The book received no praise, nor censure, nor perusal. I seek not to animate the dead."² Nevertheless, Johnson issued a revised and enlarged edition in 1836, which he called A Treatise on Language, or The Relation Which Words Bear to Things. This second edition created no more excitement than the first, though it drew criticisms on account of its alleged heretical character. Horace Bushnell, for example, deplored that "to language in its more comprehensive sense, as a vehicle of spirit, thought, sentiment, [Johnson] appears to have scarcely directed his inquiries."³ And a lengthy review by Timothy Flint, although praising Johnson for having produced a "singular, learned and acute work," criticized adversely the author's treatment of natural theology.⁴ Johnson apparently took these criticisms to heart, for in his third edition, which appeared under the title The Meaning of Words, etc., he made some important emendations of his central doctrine which he hoped would justify theological discourse. Moreover, in a fourth work, The Physiology of the Senses, etc.,

¹Quoted from a letter by August Comte. David Rynin, "Introduction," op. cit., (1959), p. 6.

²Frances Wright, A Discourse on Language. Quoted in David Rynin, "Introduction," op. cit., (1947), p. 6.

³Horace Bushnell, God in Christ. Quoted in Stillman Drake, "A. B. Johnson and His Works on Language," ETC, Review of General Semantics, Vol. I, p. 239.

⁴Timothy Flint, The Western Monthly Review. Quoted in David Rynin, "Introduction," op. cit., (1947), p. 7.

published in 1856, he attempted to clarify and systematize in an almost geometric fashion many of the important ideas of his earlier writings. Whether these attempts to defend his doctrines were successful may be doubted, but the lack of public attention that his works suffered for the next century may be some indication of the continuing displeasure of the readers he had among learned divines and other contemporaries.

There are other reasons, however, tending to account for Johnson's lack of popularity both in former and more recent times. It is probable, for instance, in view of the fact that British Empiricism was relatively unknown in America, that Johnson would have been accorded the recognition he deserved had he published his works in England rather than America. Also, Johnson's works were published in small editions which did not receive a wide circulation. Stillman Drake, who reprinted by hand an edition of forty-two copies of Johnson's 1846 publication, believes that

the similarity of his works to those of the semantists, although astonishingly close, seems to have escaped comment--perhaps because of the scarcity of Johnson's books after a century of neglect.¹

Stimulated in part by Drake's interest in Johnson, David Rynin produced a conflation of Johnson's first two books in 1947, to which he added a preface explaining his method of organization, an introduction containing a brief account of Johnson's life and

¹Stillman Drake, "A. B. Johnson and His Works on Language," ETC, Review of General Semantics, Vol. I, p. 239

writings, a critical essay in which Rynin criticizes Johnson's ideas, and an appendix in which he identifies Johnson's unquoted sources.¹ Rynin's edition was favorably received by critics who found merit both in Johnson's semantics as well as in Rynin's own contributions. John Hospers, for example, wrote that Johnson's Treatise "is still the best book on semantics thus far written in America."² He explains:

If this is semantics, it is semantics in a much more profound sense than that practised by the bulk of twentieth century semanticists, most of whom have (to all appearances) never grasped the import of the points that Johnson was trying to make.

And Hospers adds:

Johnson's views have tremendous philosophical implications, which he himself constantly draws. (It is safe to say that many subsequent philosophers who never heard of Johnson were refuted by him in advance.)³

Of Rynin's critical essay Hospers declares that it is "both thorough and appreciative,"⁴ while another writer has said of the entire work (*i. e.*, Johnson's first two books and Rynin's critical essay) that it represents "the best available introduction to logical positivism."⁵

¹ A paper-bound edition of this work appeared in 1959 without the critical essay but with a new introduction.

² Quoted in David Rynin ed., A Treatise on Language, (1959), rear cover.

³ John Hospers, "Review," Philosophical Review, Vol. 57, p. 181.

⁴ Loc. cit.

⁵ Burnham P. Beckwith, Religion, Philosophy and Science, (New York: Philosophical Library, 1957), p. 6.

Rynin's edition unfortunately does not contain any of the material of either The Meaning of Words or the important Physiology of the Senses, a book of remarkable organization illuminating much that is unclear in earlier writings. These omissions are questionable in an edition which is alleged to contain "the core of Johnson's philosophical views,"¹ because not only is his early position significantly augmented and expanded in later writings, it is also fully appreciated and understood only in the light of the latter.

The following chapters are intended to do justice to all of Johnson's works on semantics. Though some repetition of the ideas of the first two works occurs in later editions, I shall consider Johnson's first two books his early work and his last two his late work. Thus the early work corresponds to the material presented in Rynin's conflation and, due to the fact that this edition is easily available, most readers who are acquainted with Johnson's ideas will probably associate them with the early work. In his late work, which is rather difficult to obtain, Johnson expands his theory sufficiently to make it imperative to rescue this material from the oblivion in which it continues to languish.

The distinction between the early and the late work is not intended to imply that there exists any radical alteration

¹John Hospers, loc. cit.

or reversal of the early theory in later writings. The classification is a mere convenience suggested partially by a time lapse between the writings of these two sets of books, during which Johnson must have realized that his precocious theory was not yet capable of introducing "a revolution in every branch of learning," and that some revision and expansion was necessary. This expansion, however, is little more than a logical following out of ideas he had entertained and interests he had demonstrated in the early work.

I suspect that the lack of understanding alluded to by Hospers is due partially to Johnson's failure to provide a clear and precise exposition of his ideas especially in the early work. The deficiency though mitigated to some extent in The Physiology of the Senses, was clearly prevalent in The Meaning of Words. Johnson was himself aware that his doctrines might possibly be misunderstood. He wrote in his preface:

...all that the book contains is the elucidation of but one percept; namely, to interpret language by nature...The percept itself which I have sought to illustrate, I profoundly respect; but whether I have demonstrated its importance, the publick must determine. Amid active and extensive employments, and with no external stimulus to literary pursuits, I shall be satisfied if the succeeding discourses shall commend the doctrine to the efforts of men whose understandings are more comprehensive than mine, and whose labours the world is accustomed to respect.¹

Johnson was no philosopher, at least not by profession, and according to Drake, had no formal education beyond the age

¹Quoted in Stillman Drake, op. cit., p. 238.

of fifteen.¹ One must marvel all the more at Johnson's astounding accomplishment in creating a philosophy of language which compares favorably with the work of such predecessors as John Locke, Bishop Berkeley and David Hume. He approaches his subject with the tenacity of a scientist, and he is perhaps more literally an empiricist such as Bacon visualized than were his predecessors with their traditional arm-chair procedure. The result is not always a clear exposition of his ideas; and though the evidence which he copiously adduces is intuitively compelling, his examples are so typical of linguistic fallacies that there is a danger of assenting too readily to the ideas which they are designed to illustrate.

Johnson differs from his empiricist ancestors primarily in his emphasis on detailed analysis of language as a propaedeutic to the resolution of philosophical disputes. A "new sort of logic and critic" is what Johnson purports to have developed, but not a new theory to settle the questions of preceding rival theories. He is proud of his approach and confident in its success:

To fix the fluctuating mass of theories, no man has suggested any other expedient than the construction of some new theory, to whose authority all persons shall submit. The remedy is constantly augmenting the disease. I shall not imitate so unsuccessful a procedure.²

¹Ibid., p. 251.

²Johnson, A Treatise on Language, op. cit., p. 31 (Lec. I, par. 4).

Though in some ways Johnson's achievements parallel those of Immanuel Kant, in that both were faced with the disputes of rationalism and empiricism, and both formulized solutions to many of these, the two philosophers' procedures are radically divergent. Kant fancied that by an ingenious synthesis of competing philosophical systems he had solved all the hoary metaphysical puzzles of his time. Johnson, in an entirely different and perhaps more effective manner, "solves" problems by demonstrating that they frequently rest on simple linguistic confusions. He has thereby effected a Copernican Revolution all his own, and he expresses this succinctly in his repeated assertion that we should interpret language by nature, not nature by language. Johnson's procedure is threefold: it consists of (a) a construction of a phenomenological nominalism based on empiricist tenets; (b) an analysis of language, and a formulation of basic linguistic principles; and (c), a supplementation of a wealth of examples and illustrations, adduced in a scientific manner from ordinary as well as learned discourse.

Any critical evaluation of Johnson's accomplishments must be preceded by an organization, clarification and interpretation of the material. My approach will in general deal with Johnson's work within his conceptual framework, within his contemporary setting, employing his own terminology and avoiding, as far as possible, the web of intricacies, distinctions and jargon of modern semantics. It would be unfair to estimate Johnson's

work solely in relation to modern semantical notions since this can easily result in misunderstanding of the work under consideration, as well as a reduction of it to modern theories.

Contemporary ideas are usually out of character in the consideration of classical material. It is possible, for example, to criticize Johnson for his failure to utilize the use-mention distinction, a convention helpful in distinguishing names from objects named. Johnson tells us, for instance, that a rose is a word, without realizing that a hundred years later arbitrary conventions will require that such an assertion be written "A 'rose' is a word," rather than "A rose is a word." In Johnson's writings, however, it is nearly always contextually clear whether he is speaking of words or objects, and hence to point out the conventions of later writers is surely trivial criticism. Indeed, the objection appears specious when we realize that the distinction between words and objects is precisely what Johnson has labored to demonstrate throughout his entire work!

Again, to dismiss the interesting notion of an intellection, which Johnson introduces in his later work, because it rests on the confusion between stating and expressing meanings, a distinction which he nowhere makes, is entirely mistaken. An interpretation of this notion in the light of the entire doctrine, on the other hand, indicates that it is not an ad hoc supplementation in Johnson's later theory, but an insight consistent with the earlier one.

My interpretation of Johnson's work shall be guided by his recommendation:

As, however, the following sheets are the painful elaboration of many years, when my language or position shall, in a casual perusal, seem absurd, (and such cases may be frequent), I request the reader to seek some more creditable interpretation. The best which he can conceive should be assumed to be my intention...¹

Occasional criticism which the reader of this paper encounters is intended not to subvert but to interpret a possible alternative rendition of an idea in Johnson's doctrine; nor is it intended to alter or improve the theory but to help clarify and systematize it. My paper is thus more than an attempt to present some little-known facts about an aspect of the history of Anglo-American philosophy; yet it is not an attempt to expound the one and only correct philosophy of language.

I shall limit my inquiry to an investigation of words and their meanings, while ignoring propositions, time and space not permitting a thorough examination of both topics. This limitation is necessary in the first and third chapters which deal more specifically with Johnson's semantics than the second chapter, which is an inquiry into some general questions concerning language and knowledge.

The first chapter is an attempt to organize, clarify and interpret Johnson's major ideas expressed in the Treatise. I

¹Johnson, "Preface," A Treatise on Language, op. cit., p. 26.

have occasionally drawn relevant material from The Physiology of the Senses, and my exposition of Johnson's theorems which form the basis of his epistemology is suggested by the organization of the latter work.

Johnson, who opens his Treatise with the assertion that he is neither original nor interested in anything but an application of prevalent notions, manages in the course of his book to advance empiricist thought to some degree. And though he is primarily engaged in a fascinating application of his ideas to the solution of philosophical problems and disputes, to the elimination of vacuous queries and to the clarification of concepts, he succeeds in developing an epistemology which, in spite of its weaknesses, is an original contribution.

The first section of Chapter I deals exclusively with this epistemology, in particular with Johnson's ontology, or his conception of the universe which is governed by his theory of perception. The second section is concerned with a number of problems arising through misuse of language and through our inattention to the theorems explained in the first section. The third section is devoted to a discussion of the relation of reference that obtains between words and objects, and to the meaning of words.

The theory disclosed in the Treatise suggests a number of interesting questions which I discuss in the second chapter. Corroboration for some of the solutions to these questions, which I suggest in the course of that discussion, is found in Johnson's

later writings. Finally, in the third chapter, I discuss Johnson's book, The Meaning of Words, with particular emphasis on the notion of an intellection which plays an important role in this work. Intellections are a significant extension of Johnson's earlier system of semantics, and they are instrumental in his development of a more mature philosophy of language.

CHAPTER I

WORDS, OBJECTS AND THEIR RELATION: THE EARLY CONCEPTION

In the present chapter I shall present an interpretation of Alexander Bryan Johnson's early work on the theory of reference, i.e., the relation which obtains between words and objects. The material of this chapter will form the basis for a wider study, in the second chapter, of language as a tool in the acquisition of knowledge. In the course of the present discussion I shall attempt to clarify Johnson's position, organize his major ideas, examine some ambiguities, and elucidate important assumptions, some of which Johnson employs as criteria in his classification of the universe, and some as major linguistic principles.

Johnson's treatment of language is divided into three parts: the first part is concerned with his conception of the universe, or with the set of all entities to which a language might make reference; the second part deals with his conception of words, or with the set of all entities which are capable of referring to objects in the universe; the third part deals with the relation of reference itself and with the conditions under which it can obtain between linguistic entities examined in the second part and entities in the universe as described in the first part.

We shall find that Johnson is preoccupied more with the nature of the reference of words than with these words or with the relation of reference itself. He deals with language only to demonstrate that it "possesses limited powers...and to define

the limits"¹ of it. Since language, according to Johnson's theory, has only one power or function, namely that of being capable of referring us to objects, to determine the limitations of language is to determine the range of its reference. In other words, we must examine the universe to determine what exists to which language may refer. Such contemplation of the universe is essential to an understanding of the relation of reference itself. Johnson observes that "To understand the relation which words bear to created existences, we must contemplate creation apart from words."²

But to contemplate creation apart from words and yet explain the results of such contemplation in words engenders certain problems, among which are precisely those difficulties in language which the Treatise endeavours to point out. Because referents and meanings are identical in Johnson's theory, we cannot obtain the meaning of words unless we examine meaning apart from words. And in order to examine them we must nearly always utilize our sense organs. Hence to understand the meaning of a word we must first be guided or referred by the word to its meaning or referent, and then apprehend that referent by means of one or more of our senses. Explanation in the usual sense is therefore not possible in Johnson's

¹Johnson, A Treatise on Language, op. cit., p. 32 (Lec. I, par. 4).

²Ibid., p. 47 (Lec. II, par. 4).

theory. A set of words cannot be used to explain their meanings because explaining a meaning usually means to reveal that meaning, and nothing can reveal meanings but our sense organs.

Thus from the beginning we must regard Johnson's own writings not as an explanation of their subject matter, but as a mere reference to it. Like any other verbal disquisition, the Treatise can do no more than refer us to its meanings, or referents, and ultimately to comprehend these referents requires us to transcend its language and contemplate them, employing the only appropriate tool available in any pursuit of knowledge, namely, our sense organs. The significance of these ideas, which are unclear at this point, will be recognized in what follows.

The Content of Creation as Revealed by our Senses

Johnson's conception of the universe¹ is expounded in the second lecture of the Treatise, but is developed throughout the remainder of the work, particularly in Lecture XI in which internal feelings are explained; and it is further elucidated in The Physiology of the Senses. Several fundamental distinctions are helpful in the classification of what, for Johnson, can be said to exist. The distinctions directly relevant here are the following:

¹The terms "universe," "nature," "reality," and "creation" are used synonymously throughout the Treatise.

- (a) The universe consists of verbal and sensible objects.
- (b) These objects may belong to either the external or the internal universe.
- (c) Relative to any knower these objects may be subjective or objective.
- (d) Objects may be further characterized as particular or universal.¹

The first distinction between verbal and sensible objects is a functional one: everything that is to be found in the universe enjoys equal status, is equally important and deserves equal consideration. But a sub-class of objects may be used to signify, to name, to designate, to mean, to be the signs of, or to refer to² the remainder of existing objects. The objects of this sub-class are called "verbal"; everything else is called "sensible." Johnson's terminology here is misleading for it seems to suggest that verbal objects, such as words, are not sensible. Johnson, however, is well aware that this is not the case. He remarks in his sixth lecture: "Every word is a sound." Nevertheless, he recommends in another place that we should "regard words as merely the names of things"³ because words "are not the realities of the universe."⁴ These admonitions

¹For other distinctions see pages 31-32 below.

²These terms are used synonymously in Johnson's writings. I shall use the term "refer" from now on, but the others will occur in quotations.

³Ibid., p. 54 (Lec. II, par. 22).

⁴Ibid., p. 172 (Lec. XII, par. 14).

make sense only if we regard the distinction as a functional and not as an epistemological one. The intended distinction is this, that relative to a given relation of reference, "verbal" objects are ones which refer and "sensible" objects are ones which are referred to. Hence both verbal objects and sensible objects may be referred to, but only verbal objects refer.

The distinction is useful in the Treatise. Later, in The Meaning of Words and also in The Physiology of the Senses, Johnson speaks of the natural language of our senses, in which sensible objects may also be signs of, or refer to, other objects. He observes, for example:

Our sensible perceptions constitute thus an unverbal language common to all men, and more important by far than Latin and Greek.¹

Thus when a doctor hears certain sounds produced by the heart, the sounds are signs of a disorder which he recognizes; and these sounds are said to refer him to the disorder. The distinction between verbal and sensible objects at this point is simply this, that verbal objects are words while sensible objects are what we see, feel, taste, smell and hear.² Verbal objects are no longer singled out as capable of functioning referentially, though of course they may do so, because sensible

¹Johnson, The Meaning of Words, etc., (New York: Appleton & Co., 1862), p. 94

²Another difference found in connection with this distinction is a change of terminology. In later writings Johnson uses the term "unverbal" in place of "sensible." See page 135 below.

objects can also refer.

The distinction between verbal and sensible objects can be extended to include types of meaning and types of knowledge. Verbal meanings and sensible meanings are the referents of all words. If a word has a sensible referent, that is, if it refers to a sight, sound, etc., then it has sensible meaning. But if a word refers to no sensible referent then it has verbal meaning. Note that I have given the condition which a word must fulfill in order to have verbal meaning in a negative way. When the distinction is applied to meanings the term "non-sensible" is not synonymous with the term "verbal," because non-sensible meaning is only a sub-class of verbal meaning.¹

Finally, if we know verbal meanings then we have verbal knowledge. Verbal knowledge may be gained through conversation, reading or conceiving, in short, through the reception and manipulation of words alone. Sensible knowledge, however, can be provided only by our senses. Words cannot give us sensible knowledge, except the knowledge of their own sounds: "Words can teach us nothing but themselves." Johnson explains:

Suppose X to be a sight, taste, feel or smell which you have never experienced, and I wish to communicate it to you by words; the words which I utter will not be X, but their meaning is X, and so ad infinitum; hence X will be still uncommunicated to you, after you have heard all the words I can use.²

¹ See pages 72ff below for further discussion of verbal and sensible meaning.

² Johnson, The Physiology of the Senses, etc., (New York: Derby & Jackson, 1856), p. 30.

Sensible knowledge may, however, be provided by other organs than our senses. It may be provided by our emotional organism or by what Johnson calls our "consciousness." In relation to these organisms a second distinction is necessary.

Distinction (b) between objects which are external and those that are internal is best regarded as a common-sense classification of experience. Johnson is not advocating a realist position as opposed to an idealist or materialist one. The principles that he subsequently applies to objects he wishes to apply equally to internal and external ones. The classification is therefore dictated by convenience. It is nevertheless not an arbitrary one for it is governed by an analogous distinction between types of perception. In general, perception provides us with our knowledge of the objects in nature. In particular,

external sensible existences are susceptible of a classification which shall refer each existence to the sense through whose agency we acquire our knowledge of the existence.¹

External sensible existences are so called because they are perceived by means of the five external senses: sight, feel, smell, hearing and taste. Internal sensible existences, or internal feelings, are also classified, according to Johnson, "among the information that we derive from our senses"; and, he continues: "I adopt the term internal feelings, as it will

¹Johnson, A Treatise on Language, op. cit., p. 47 (Lec. II, heading).

probably indicate the phenomena which I wish to designate."¹ Johnson uses the term "senses" in a broad way to include emotional perception as well. He wishes to maintain, however, that different senses are different because none can take over the function of any other. External senses receive one type of phenomenon; the internal sense receives a different type. Thus what distinguishes internal feelings from other types of sense experience is the type of sense by which they are apprehended.

We usually distinguish external from internal phenomena by saying that internal phenomena are in some sense private, whereas external phenomena are public. Internal phenomena are subjective for the individual who happens to experience them, and only he can experience his pains, his emotions and feelings. External phenomena, on the other hand, are public in that any person could in principle perceive them. Johnson, however, avoids this issue and never commits himself explicitly. Hence there are problems in resolving some of his contentions. We shall see that Johnson equates the information of our senses with what exists, yet he does not commit himself to a clear-cut subjectivism or solipsism. Also, Johnson suggests in a different book that the meanings of words are sometimes ideas or thoughts: "Words as signs of ideas, can be signs to me of only such ideas as I possess."² Ideas or thoughts, however,

¹Ibid., p. 159 (Lec. XI, par. 1)

²Johnson, The Physiology of the Senses, etc., op. cit., p.31

belong to the internal universe by the criterion that they are in some sense private events.¹

The question is sometimes raised whether all sense informations, not only internal feelings, are really internal, or whether there is an inter-subjective manifold which provides the meaning of words referring to phenomena that anyone may have. In some places Johnson supports the former view. He writes:

All that my senses disclose, and all that I am conscious of experiencing within myself, constitute the realities of nature. The rest of my knowledge is verbal.²

This seems reminiscent of Bishop Berkeley's "to be is to be perceived", except that Johnson's statement is much more subjective: Johnson says that "to be for me is to be perceived by me." Thus it would appear that Johnson is a kind of solipsist; yet we find him making statements such as the following, which seem to imply that he is willing to speak of physical objects, or at least of inter-subjective phenomena, which are open to anyone's perception:

When a flash of lightning crosses the horizon, it appears as vividly to persons around you as to you; hence when you attach a name to it, every person knows what the name signifies.³

¹The terms "ideas" and "thoughts" are synonymous for Johnson. For a discussion of the nature of thoughts see page 45ff below.

²Johnson, A Treatise on Language, op. cit., p. 173 (Lec. XII, par. 17)

³Ibid., p. 251 (Lec. XX, par. 2)

Any attempt to make Johnson's position explicit here is doomed to failure because he himself dismisses the entire question as based on linguistic confusions. Thus he discourages any serious pursuit of the question when he writes:

The metaphysician who concludes his book by asserting that nothing exists exterior to his mind, might have concluded it by asserting that every thing is exterior, if he had only named the objects of his knowledge impressions instead of ideas.¹

And in a different lecture Johnson analyses the question in a typical manner:

'Though we suppose generally that external objects cause in other persons similar sights, tastes, feels, sounds and smells, to those which they produce in us, yet' say metaphysicians, 'no man can know this with certainty.'

Apparently a mysterious contradiction exists in the above position; for while we wonder at the alleged want of knowledge, we are confident of a practical possession of it. The difficulty proceeds from the - restriction which metaphysicians place on the phrase 'to know.' The controversy relates not to nature, but to language. What we experience will not be affected by the phrases which we apply to it. If the phrase 'to know' shall be restricted to the information of my own feeling, I cannot know how fire affects your hand; for I cannot feel with your hand. When, however, I assert that I know how fire affects your hand, the assertion does not include that I can feel the operation of fire on you. The assertion refers simply to my experience, conjoined perhaps with various facts and expressions that I derive from you.²

The metaphysician deduces fantastic conclusions only because the words which he chooses, his universe of discourse, allow him to do so. A rival metaphysician will deduce rival conclusions,

¹Ibid., p. 224 (Lec. XVII, par. 6)

²Ibid., pp. 286-287 (Lec. XXV, pars. 7-8)

equally fantastic, from a different set of words. But if "we employ language simply to refer to phenomena, no serious evil can arise from the terms we adopt."¹ Thus Johnson's own terms "internal" and "external" should be dismissed if they fail to refer us appropriately.

Distinction (c) between a subjective and an objective universe differs from the former in that it does not attempt to locate objects as either internal or external, but that it does attempt to characterize objects relevant to a knower. In this characterization of objects two things are determined: first, whether the object exists, and second, whether it exists as an object of knowledge relevant to any given person. The ontological existence of objects would seem to be contingent on a knower as much as their status as known objects is. Johnson (first quotation page 21 above) indicates that perception is the guide to what exists because our sense informations are identical with the realities of nature. The question naturally arises whether the existence of an object is contingent upon my perception, or whether anyone's perception is relevant in determining the object's ontological status. Johnson's position here is not entirely explicit though there is some evidence that he would support the second alternative. Thus he writes:

Decapitate signifies to me nothing but the phrase 'to cut off a head.' Should I unfortunately see a person guillotined, the word decapitate might thereafter signify the sight. To circumnavigate the globe, possesses with

¹Ibid., p. 224 (Loc. XVII, par. 7).

no meaning but certain words and phrases; but with Anson or Cook, the meaning consisted of the revelation of their senses.¹

Though Johnson had never perceived the sight denoted by the word "decapitate," some persons have seen it, and hence the act has a real existence as much as the circumnavigation of the globe has because the latter was perceived by Anson and Cook. This circumnavigation is not merely a collection of words augmented perhaps by various pictures; it is a certain event which most certainly existed in that it occurred as witnessed by Anson and Cook. Speaking specifically of objects Johnson says:

Shipwreck signifies to me at present no more than some words and paintings; but hereafter it may unfortunately name a sight.² (my italics)

Shipwrecks exist in spite of the fact that Johnson has never perceived one. Similarly, the word "red" has no sensible meaning for a blind man though it has sensible meaning for many other persons. Yet instances of red exist, in spite of the blind man's lack of sight, and they exist as evidenced by the relevant perceptions of others.

Another point is of importance here. The phrase "Contingent on perception" does not mean that "X exists only if it is perceived." It means "If X exists then it is capable of being perceived." Johnson declares: "when we employ a phrase without referring to any discoverable existence or operation, the words

¹Ibid., p. 164 (Lec. XI, par. 15).

²Ibid., p. 152 (Lec. X, par. 12).

are divested of signification."¹ (my italics) If a word has sensible meaning, that is, if there exists a sensible referent to which it refers, then it must be at least in principle possible for someone to perceive that referent.

We may nevertheless continue to speak of objects as existing for a given person and not for other persons, but such existence will mean only "existence-as-object-of-knowledge." The color red is not an object of knowledge for that person who has no sight, though it is an object of knowledge for those who do have this faculty, and who have perceived an instance of this color. Hence the color red exists for some, yet does not exist for others as an object of knowledge. Moreover, the color exists ontologically, irrespective of the blind man's failure to perceive it, because at least one person is able to ascertain its existence by means of his perception.

Before introducing the notion of a subjective universe versus an objective one, I would like to introduce another distinction in order to avoid confusion. Johnson distinguishes the universe of phenomena from what he calls a "terra incognita"² which consists of "objects" that no one could ever perceive. An object exists if it belongs to the universe of phenomena, where its existence is attested by, or can be attested by perception. The universe of phenomena can be distinguished

¹ Ibid., p. 203 (Lec. XV, par. 11)

² Johnson, The Meaning of Words, etc., op cit., p. 208

into a subjective and an objective part. This distinction is not to be regarded as a real distinction (such as the distinction between the universe of phenomena and the terra incognita), but a distinction related to the question of meaningful discourse. There is only one universe, but each person can speak significantly of only that part of it which is for him subjective, and with which he is acquainted through his perceptual apparatus. The objective universe, relevant to any given person, is that part of the universe which he has not perceived, and of which he cannot therefore speak significantly. Thus the subjective universe of a blind or a deaf man is considerably smaller than that of a man in possession of all his senses. But for each the meaning of the words which he employs to describe his subjective universe is governed entirely by his sense information, and the universe with which he is acquainted consists only of that information, though, for all he knows, the objects of the entire universe are much more numerous than the ones which he knows.

Johnson suspects that the reader will evince surprise at his limited capacity for meaningful discourse;

To deem ourselves shut up in the universe with no capacity to know or even to speak anything of it but what our senses reveal seems a narrower range than we are accustomed to attribute to our knowledge. Still, such is our situation.¹ (my italics)

¹Johnson, A Treatise on Language, op. cit., p. 250 (Loc. XIX, par. 17).

Though we may indeed know or speak of only the subjective universe, this need not imply that the subjective and the objective universes are identical. The objective universe is the universe of which our knowledge is steadily increasing; the subjective universe is the universe which we know.

The standard distinction between knowledge by description and knowledge by acquaintance is equivalent to the distinction between knowledge of the subjective and knowledge of the objective universes. We can know the objective universe only by description, that is, we know of it from conversation and reading. And we can know the subjective universe only by acquaintance, that is, we can know it through our sense organs. Johnson himself speaks in these terms in a later work: The theorem, "Anything which seeing informs me of, no one or more of my senses can inform me of" helps us comprehend "the difference which exists unverbally between knowledge that we obtain by seeing, and knowledge that we obtained from reading or conversation."¹ He explains that no matter how appropriately we describe a scene, the description communicates only verbal knowledge but no sensible knowledge. Thus Johnson's distinction between verbal and sensible knowledge is essentially the same as the distinction between knowledge by acquaintance and knowledge by description.²

¹ Johnson, The Physiology of the Senses, op. cit., p. 23.

²For further discussion of this distinction see pp. 109ff below.

The final distinction, distinction (d), that must be made is that between particulars (or individuals) and universals. According to Johnson, "the particulars which we can discover in nature are all which truly pertain to nature."¹ In other words, "creation is a congregation of individual existences."² Universals do not exist except in a verbal sense. Johnson questions: "What is the identity of grass beyond the sensible resemblance of the different blades?" And he answers: "Nothing but the name grass."³ From a semantical point of view we may say that no universals exist for Johnson because the universe consists of objects each of which could in principle have a proper name. Even predicates are names of particular sights, feels, etc., only: the predicate "red" does not name a universal red of which various reds are instances; it names a particular red (in view of the fact that all names are general, as Johnson recognizes, the term "red" names many particular reds) which has no sensible identity with any other red.

Equipped with the distinctions that we have so far discussed, and the criterion that perception, in a broad sense, is the guide

¹Johnson, A Treatise on Language, op. cit., p. 75 (Lec. IV, par. 7).

²Ibid., p. 79 (Lec. V, par. 11).

³Ibid., p. 81 (Lec. V, par. 9).

to existing objects, Johnson is prepared to classify the contents of the universe. He affirms:

The whole universe can be nominally analyzed into sights, sounds, tastes, feels, smells, internal feelings, thoughts, and words.¹

This classification is somewhat more detailed than the following which Johnson makes in a different lecture, in which the universe is said to be "a mass of sights, sounds, tastes, feels, and smells."² Employing distinction (a)³ we may say of these classifications that the first refers to the universe of both verbal and sensible objects, while the second intends the universe of sensible objects only. The sensible universe, moreover, consists not only of objects which have a name, but of all nameable objects. As Johnson recognizes, there are more things than names of things.

Let us first consider external phenomena, a group of objects in which Johnson takes most interest. Two criteria are relevant to the classification of such phenomena:

- (1) The information that our external senses reveal to us is identical with external sensible existences.⁴
- (2) That no sense but seeing can inform me of sights,-- that no sense but hearing can inform me of sounds,-- that no sense but feeling can inform me of feels,-- etc.,--are obvious truths.⁵

¹Ibid., p. 161 (Lec. XI, par. 9).

²Ibid., p. 48 (Lec. II, par. 6).

³See page 16 above.

⁴This is a paraphrase of the quotation page 19 above.

⁵Ibid., p. 55 (Lec. III, par. 2).

The first criterion is essentially the empiricist tenet that to be is to be perceived, with the following modification in the light of distinction (c): What exists must be amenable to perception, not necessarily any single person's perception, nor that of any presently living and perceiving person. It is moreover, not because objects are perceivable that they exist; it is only that if an object exists (in the ontological sense), then it must be perceivable by some person. Relative to any given perceiver, however, we may speak of an object as existing or not existing for that perceiver, in the sense of object-of-knowledge. An object exists in this sense for some person if it is a part of his subjective universe. It is Johnson's business to investigate his own universe, and to help us use language correctly in regard to ours.

Though the chemist in Johnson's day found forty inconvertible substances in the universe, as a consequence of criterion (2) "creation is susceptible of a classification more definite, and even less multifarious."¹ Since each of the senses is sui generis as a source of knowledge, and since the information that we receive from any one sense cannot be given by any other, there are five distinct, intransmutable and inconvertible types of sense information: sounds, sights, feels, smells and tastes. These insights lead Johnson to the following definitions:

¹Ibid., p. 47 (Lec. II, par. 4).

Every information received from the sense of seeing,
 I call a sight.
 Every information received from the sense of feeling,
 I call a feel.
 Every information received from the sense of hearing,
 I call a sound.
 Every information received from the sense of tasting,
 I call a taste.
 Every information received from the sense of smelling,
 I call a smell.¹

The discussion of distinction (d) indicated that the information of our sense consists of objects which are particular. The following distinction must now be added to the other four:

- (e) The external sensible universe consists of basic particulars and complex particulars.¹

Particulars may occur singly as, for example, in a shadow which is only a sight; wind, which is only a feel; thunder or an echo which are only sounds. They may, and most frequently do, occur in groups of various combinations as, for example, in an orange which is a feel, a sight, a smell and a taste.

It may be objected here that what is called basic is really complex. Thus the sound thunder is really a combination of many different sounds. In the Treatise the distinction (e) would therefore have to be interpreted in this way: if a particular is constituted only of the information of one sense, it is a basic particular; but if a particular is constituted of information that is derived from more than one sense, it is a complex particular. Under this interpretation thunder would constitute a basic particular, no matter whether it is made up of one

¹Johnson, The Physiology of the Sense, op. cit., introduction

²See page 16 above for the other four distinctions.

sound or of several sounds. An orange, on the other hand, would constitute a complex particular since it is made up of information from more than one sense. A rainbow under this interpretation would also be a basic particular. Yet in some sense a rainbow is complex, consisting of many different sights. The interpretation is therefore not entirely satisfactory. In a later work Johnson lists various theorems which clarify his position somewhat. The following theorem will be sufficient for our purposes (other theorems are mutatis mutandis the same for other sense information):

- (T1) Whatever number of things seeing informs me of at the same time, they constitute but one sight.

Johnson explains this theorem as follows:

When I look at a tree, the view may be so general as to include the whole tree, or so particular as to include the whole tree, or so particular as to include one of the leaves only, or some filament of a leaf; but the gaze, whether general or particular, constitutes what the theorem designates as one sight.¹

Thus the sight rainbow or the sight tree is a basic particular in spite of its obvious complexity. Distinction (e) is necessary to understand what Johnson has in mind here. Nevertheless, a sixth distinction (f) is necessary also, to distinguish types of complexity:

- (f) The complexity of a basic particular is intra-sensual; that of a complex particular is inter-sensual.

¹Ibid., p. 4

I call a rainbow an "intra-sensual complexity" because its complexity is manifested within the range of one sense alone. An orange, on the other hand, I shall call an "inter-sensual complexity" because its complexity is manifested within the range of several senses. The distinction is warranted not for the sake of clarity alone; it is helpful to distinguish types of complexity because different types engender different kinds of linguistic difficulties.

Difficulties, however, exist even apart from language. We find in the Treatise several principles (some of which are expressed clearly and explicitly as theorems only in Johnson's The Physiology of the Senses) that must be kept in mind when dealing with particulars; for if these principles are ignored, errors ensue in both our reasoning and our knowledge-claims. I shall now turn to these errors in the light of Johnson's principles or theorems.

Since the theorems governing phenomena hold mutatis mutandis of each of the several types of phenomena, I shall state each theorem only once, and each time in respect to sight. And since (T1) has been explained, we proceed to (T2).

(T2) Only seeing can inform me of sights, and it can inform me of nothing but sights.

This theorem is a combination of two complementary theorems in Johnson which are equivalent to it: (1) Seeing can inform me of nothing but sights. (2) Anything which seeing informs me

of, no one or more of my senses can inform me of.¹ It should be observed that (T2), which is a stronger statement than criterion (2), is analytic since it is entailed by the definition of a sight. The definition tells us that any information received through seeing is called a "sight," and no information of any other sense is called a "sight." The next theorem is a formalized version of some earlier statements² to the effect that the information of our senses constitutes our entire sensible knowledge.

(T3) That of which no one or more of my senses can inform me, is not sensible.³

This theorem, which is rendered explicit in later writings, is again analytic for it follows from an implicit definition that something is sensible if, and only if, it is cognizable by my senses. Johnson tells us that one portion of the external universe "is cognizable by our senses. This portion I shall classify by itself, and call [its members] sensations--sensible things, and sometimes physical things."⁴

(T4) Any sight which seeing has not informed me of, is unknown to me.⁵

¹Ibid., p. 23.

²See first quotation page 21 and criterion (2) page 29 above.

³Ibid., p. 42.

⁴Johnson, The Meaning of Words, etc., op. cit., p. 20.

⁵Johnson, The Physiology of the Senses, op. cit., p. 36.

The above theorem follows from the definition of sight, in conjunction with (T2) and (T3). It is clear that when Johnson says "unknown to me" he means "sensibly unknown to me." It is still possible that an object which I have not seen is known to be, viz., I possess verbal knowledge of it. Given this explication of knowledge, (T4), finally, is again analytic.

We find in Johnson the following theorem also:

If anything (A) be one sight, and anything (B) another, and A and B together another sight (AB,) seeing does not inform me of the sight AB, when it informs me of the sight A and the sight B.¹

This theorem follows from the conjunction of (T1) and (T4).

(T1) tells us that a combination of different sights is again a sight. Hence when I see sight A and sight B, which are different from sight AB, I will know nothing of sight AB according to (T4). Moreover, in the light of (T2) it is possible to strengthen the above theorem to read instead:

(T5) If anything (A) be one sight, and anything (B) another, and A and B together another sight (AB), neither seeing, nor any other sense, can inform me of the sight AB when it informs me of the sight A and the sight B.

Note here that (T5) is probably not analytic since it is partially contingent on (T1), which is not analytic given the interpretation which Johnson intends, namely, that a combination of different sights is itself an entirely new sight. Thus he

¹Ibid., p. 1.

writes in the Treatise: "A change of appearance is a new sight, and irremediably unknown till disclosed by our eyes."¹

(T6) When we see a sight, experience alone induces us to expect that it is associated with a feel.²

Johnson explains this theorem as follows:

We erroneously deem the sight a proof that a feel exists, and hence we suspect no possibility of mistake when we predicate tangibility of the sun, moon and stars. We suppose that we can see their tangibility; a supposition which involves the absurdity that we can feel with our sight.³

When I see a table which I have never felt, I shall not be able to predicate tangibility of it because tangibility is a feel and hence, by (T4) as applied to feels, I cannot know that the table is tangible. The fact that I see the table, moreover, cannot help me to know that the table is tangible on account of (T2). But this is not the entire content of (T6). It says furthermore (a) that a sight in conjunction with the relevant past experience allows me to expect a feel; and (b) that the relevant experience in question informs me of a connection between a sight and a feel. I observed previously that there exist two varieties of complexity in certain particulars. Johnson does not take up the question of how we determine the difference between associated and unassociated particulars, nor

¹Johnson, A Treatise on Language, op. cit., p. 146 (Lec. X, par. 4).

²Ibid., p. 52 (Lec. II, par. 18).

³Loc. cit.

why some are associated and others are not. It is clear, however, that some sense experience is relevant to such a determination. The following theorem, suggested by point (b) above, will be helpful in what follows:

(T7) A complex particular is unknown to me until apprehended by a conjunction of the relevant senses.

The theorem is an extension of (T4) which says that an uncompounded particular is unknown to me unless perceived by the relevant sense. Note also that (T6) can now be said to follow from (T2), (T4), (T7) and an inductive principle such as (a) above.

Let us now consider some problems which arise if these theorems are not adhered to. Johnson's analysis of complex particulars has shown that an orange, for example, is constituted of four non-complex basic particulars. Ordinarily, when we see an orange and subsequently feel it, we are inclined to say that we have perceived the same orange twice. This, however, is inaccurate: we have experienced the orange itself only if we have experienced all its aspects according to (T7). There exists no one sense which reveals to us the object called "orange." That we have not experienced the same things twice but only aspects of the same thing when we have felt and seen an orange is furthermore emphasized by (T2), for if a sight were identical with a feel then seeing could reveal to me a feel and feeling could reveal to me a sight. Furthermore, by (T3) it follows that the above four aspects of an orange exhaust

its sensible content, and that if an orange is alleged to have a substance in which these four aspects are "embedded," this substance is not sensible. Finally, by (T6), if we have never felt an orange we cannot predicate tangibility of it when we see it.

But even if we observe (T6) we may still be misled. Johnson tells us that the aspects of complex particulars are separable.¹ Thus we may separate the sight gold from the feel gold by placing a piece of gold before a mirror. The mirror will exhibit the sight gold without the corresponding feel. All paintings are essentially sights without the usual associated feel, and in the absence of light or of eye-sight, all feels are separated from their usual associated sights.

Another problem which arises in connection with complex particulars is the ambiguity of a dispute in which the disputants argue about the nature of a thing and each of them alludes to a different aspect of it. This problem, however, is connected with language and will therefore be treated later.²

Finally, there arises an interesting problem in connection with (T5). If I have never seen a rainbow, though I have seen all of its colors, and its dimensions and configuration have been described to me, by (T5) I cannot claim to sensibly know the rainbow as a whole. If this is the case then it would

¹Ibid., p. 50 (Lec. II, par. 15).

²See pages 56ff below.

follow that descriptive knowledge is in some sense less powerful or informative or revealing than sensible knowledge. Insofar as this problem relates to language and knowledge I shall discuss it in detail in Chapter II. At this point, since I am describing the contents of the universe, I wish to bring up a few counter-examples to (T5) which, I think, are revealed in nature. One difficulty which besets the present inquiry is the fact that (T5) is indebted not only to the empirical (T1), but also to the analytic (T2) and (T4). I shall contend in the next chapter that Johnson's depreciation of descriptive knowledge is partially due to his confusing the empirical with the analytic content of (T5). As a preparation for this discussion the following considerations are relevant:

There exists, first of all, an interesting connection between the senses of smell and taste in respect to a number of substances (e.g., peppermint, onion, certain organic compounds of the ester family, etc.,) which need to be smelled in order to be tasted. That is, only if we smell such substances can we taste them. Now it would seem therefore that a smell may reveal a taste. Yet according to (T2) this is analytically false.

Again, there does not appear anything in principle incorrect when we say that a sound may be revealed by a sight. A practised musician will hear a certain combination of sounds in his "mind's ear" when he sees a certain configuration of

notes. And this is precisely the reason why a musician can discriminate wrong notes from right ones on the basis of vision, or more accurately, on the basis of what he hears in his mind's ear, which is induced by the configuration of notes that he sees. Conversely, it is possible to speak of sounds producing sights. Thus when we hear a description of any object, some mental image is usually evoked by that description. Whether or not this mental image fits the description or not is immaterial here. The point is that some image is produced, and hence a word, which is a sound in a spoken description, produces a mental image which is a sight.

Finally, we may induce sense-information by means other than the five senses. Thus when we dream, or when we are under the influence of certain drugs, we may have a variety of sights, feels, etc., none of which is due to the slightest effort on the part of our senses. But again, this assertion is analytically false in view of (T2). Hence Johnson disagrees with these alleged counter-examples as would be expected. He tells us for example: "That language can reveal to me no sight that seeing has not informed me of, is a physical truth which experience will substantiate."¹ But he is mistaken in thinking that the theorem in question is a physical truth. The theorem is analytic since it follows from Johnson's definitions of sense informations, as I indicated.² Johnson asserts the same

¹Ibid., p. 147 (Lec. X, par. 6).

²See page 34 above.

in respect to all other types of phenomena, and he would probably rule out any other putative source of sense information apart from the five senses themselves.

Now it is indeed false by definition to say that a mental image is a sight, and false by (T2) to say that a mental image is revealed by some agency other than seeing. The problem therefore reduces to the following questions:

- (a) Is Johnson's definition of "sense informations" acceptable, or is it too narrow?
- (b) What precisely is meant by "is revealed"?

These questions are not independent of each other. If, for example, "revealed" should mean "caused", then it is clear that the information revealed to us by hearing, for instance, includes not only sounds but sights also, namely mental images, because a word, which is a sound, can reveal or cause a mental image, which is ordinarily some kind of sight.

To amend Johnson's definitions, however, entails a complete revision of nearly all theorems as well. Thus (T2) would need to be drastically revised so as to allow sights to be revealed not only by seeing but by hearing. To effect such a revision is not my intention. I have suggested questions (a) and (b) above only to indicate where the difficulties which I shall discuss in Chapter II originate, and where revision of Johnson's system would have to commence.¹

¹See Chapter II, pages 123ff, for further discussion of these points.

In order for the theorems which I have discussed above to apply to internal feelings, which are private phenomena, it becomes necessary to revise a number of them. This revision, however, is suggested by information given in the Treatise, and the revised theorems should be regarded as additional ones and not as substitutes for the others. That is, Johnson's complete epistemological theory will include both the original and the revised theorems.

I have thus far discussed external phenomena: sights, feels, sounds, smells and tastes. I shall next consider internal phenomena: thoughts and internal feelings. One would suppose that a distinction between feelings and feels should be made, but Johnson does not wish to do this. He recognizes that "the sense of feeling is usually restricted to external information"¹ but he wishes nevertheless to broaden the usage to include internal feelings as well. Johnson thereby introduces an unnecessary ambiguity since, on the one hand, the information received through consciousness is generically different from that which is received through external feeling; on the other hand, he fails to distinguish between feels and feelings. I shall, for perspicuity, retain a distinction between feels as external and feelings as internal. Johnson in later writings provides for this distinction when he makes a change in terminology.²

¹Ibid., p. 159 (Lec. XI, par. 1).

²See Chapter III page 136 below.

To describe internal feelings in detail would be to repeat a great deal of what has already been said concerning external phenomena since many of the theorems governing them apply to internal feelings "even more violently."¹ Nevertheless there are some interesting differences.

The term "revealed" continues to be vague in this context also. What is meant by "internal feelings are revealed to me"? If I am speaking of my own feelings then the answer would be: "Internal feelings are revealed to me" means "my consciousness is receiving certain types of information." It is clear that "revealed" here cannot mean "caused" as I suggested above. Consider the internal feeling called "pain." Pain is not caused by my consciousness; it is only apprehended by it. Consider next the pain of a person other than myself. According to (T4) if my consciousness has not apprehended this person's pain, the pain is unknown to me. Now it may be maintained that I could never know another's pain except indirectly by judging his external behavior, because his pain is a private phenomenon. But if this is so it would follow by (T3) that another's pain is not sensible; and by (T6) it would follow that we could never in principle judge that someone is in pain by examining his external behavior alone. And hence external behavior is no indication of internal feelings at all. But this does not accord with Johnson's ideas, for he says that a word such as

¹Ibid., p. 162 (Lec. XI, par. 10).

"fear" would not be destitute of meaning for a person whose consciousness had never informed him of such a feeling in himself, because such a

word includes within its signification some external action or appearance, which enables us to determine by looking at a man, that he is sleepy, faint, angry, jealous, envious, hungry, etc.¹

If we are able to determine this by looking then either (T6) holds and it is possible for my consciousness to apprehend another person's internal feelings, or else (T6) must be revised. It is not clear which of these alternatives Johnson would favor, since he is not interested in this particular question as I indicated earlier,² nor does he seem to be aware that there is any real difficulty.

Let us pursue this problem somewhat further since other theorems are involved here as well. We may wonder, for example, what Johnson means by "to determine" in the above quotation. If "to determine" is synonymous with "to reveal" then (T2) would need revision since it tells us that only consciousness can reveal feelings. But the two phrases are not synonymous as the following quotation indicates:

By means of these external exhibitions, a man who should be void of internal feelings, might discourse about love, anger, envy, etc.; as a man who should be void of the sense of taste, could talk of the deliciousness of peaches, oranges, grapes, etc.,--his words referring to the appearance of the fruits.³

¹Ibid., p. 159 (Lec. XI, par. 2).

²See page 20 above.

³Loc. cit.

My consciousness therefore has not apprehended another person's feelings when my sight "determines" these feelings. Hence (T2) need not be revised. Furthermore, since Johnson would thus be forced to embrace the second alternative above, (T6) would have to be revised in respect to internal feelings. Moreover, (T3) must be altered since surely another person's internal feelings are sensible even though my consciousness could never apprehend them. The alteration of (T3) is not difficult. We noted earlier that (T3) is contingent upon the definition that something is sensible if, and only if, it is cognizable by my senses. The following definition, which is in accord with my earlier discussion of subjective and objective universes, yields the desired theorem: Something is sensible if, and only if, it is cognizable by some person's senses. Thus our theorem may be rendered as follows:

(T3a) That of which no one or more of any person's senses can inform him, is not sensible.¹

Notice, however, that (T4), which was said to follow from (T2) and (T3) no longer follows when we replace (T3) by (T3a). Instead a much weaker version is entailed:

(T4a) Any sight which seeing has not informed someone of, is unknown to me.¹

Since (T7) was said to be an extension of (T4), the replacing of (T4) by (T4a) results in (T7a):

¹Compare page 34 above.

(T7a) A complex particular is unknown to me until apprehended by a conjunction of the relevant senses of some person.

Notice further that when (T4a) replaces (T4), a new interpretation of the term "unknown" must be made, for it can no longer mean only "sensibly unknown." The term must now mean "verbally unknown" unless the person happens to be myself. The following analysis of the meaning of (T7a) makes this difference clear: A complex particular is sensibly unknown to me until apprehended by a conjunction of the relevant senses; and it is verbally unknown to me until apprehended by a conjunction of some person's senses. That is, unless some person has perceived the complex particular with all his relevant senses, he cannot inform me about it, and I cannot therefore have verbal knowledge of it. This analysis accords with one interpretation of verbal meaning that I shall give later.¹

The newly derived theorems are therefore consistent with the original ones as long as we interpret the term "unknown" appropriately for each set. Note also that the revision affects (T5) in a similar manner. Finally, I shall not attempt to revise (T6) here since (T6) was said to follow from several theorems including some inductive principle. But I want to avoid raising problems concerning inductive analogy, especially since the principle in question has not been stated clearly and since Johnson gives no indication what this principle ought

¹See pages 72ff below.

to be, or under what conditions inductive analogy applies.

I turn now to a discussion of thoughts. The nature of thoughts is somewhat more difficult to determine since they seem to be a border-line case: they are not quite like external phenomena though they are definitely connected with the latter. And though they would deserve to be classified among internal phenomena, they are unlike most internal feelings. We rarely speak of what thoughts are, but taking this somehow for granted we speak rather of what they are about. Distinguishing thoughts from perceptions, to say for example that perceptions are the "material" of our knowledge and thoughts are about them, as in the distinction between impressions and ideas, has been found useful in explaining the nature of memory and the recollection, sustenance, combining and ordering of impressions, or perceptions, even in the absence of alleged causal factors. Thus Locke speaks of "ideas" some of which are perceptions, and others which are about them, or about combinations of them, whether actually perceived in such combinations or not. This distinction is useful in the investigation of the nature of knowledge. Thus if knowledge is said to be a collection of ideas in various combinations, etc., then knowledge not only is perception, as Johnson maintains, but it is also about perceptions, as he fails to emphasize.

For Johnson there cannot be thoughts about perceptions, in above sense, for this would make thoughts different from what they are about. But a thought about a word is a word. A

thought about a sight, feel, smell, etc., is that sight, feel, smell, etc. He suggests, for example:

Think the word million. The thought is a word. When we pronounce million audibly, it is a word; when we pronounce it inaudibly, it is a thought.¹

Johnson finds much connection between our organs of speech and the production of verbal thoughts, so much in fact that he concludes: "my verbal thoughts are as evidently the production of my organs of speech, and located in my mouth, as words are."²

He restricts other types of thought in the same manner. After distinguishing five classes of thoughts, each corresponding to one of the five senses, he tells us: "Each class conforms to the peculiarities of the sense with whose phenomena it is connatural."³ Thus in the case of vision and visual thoughts, for example:

Visual thoughts possess the evanescence of vision. They flash and vanish. They possess also the comprehensiveness of vision. We comprehend in one gaze the whole starry firmament, and our thought of the firmament is as capacious as the gaze, and apparently as remote from our contact.⁴

The conception of thoughts which Johnson thus entertains is rather curious. From what he says it follows that some of

¹Ibid., p. 92 (Lec. V, par. 40).

²Ibid., p. 93 (Lec. V, par. 42).

³Ibid., p. 94 (Lec. V, par. 45).

⁴Ibid., p. 93 (Lec. V, par. 44).

our thoughts are red, others green, some hot and others acrid! I suppose there is some analogy between what Johnson believes thoughts to be and what goes on in our minds. We certainly have flashes of images, we hear sounds in our "mind's ear" and so forth. But the more interesting mental events are those which are said to be about such images and sounds, etc. Thus when we evaluate a painting, when we rank and grade it among others, when we calculate what it will bring in an auction, what goes on in our mind are not flashes of sights, but thoughts about the painting and a host of related things.

Words, Language and the Problem of Generality

Words are identical with what was earlier called "verbal entities," which differ from sensible entities not because words are non-sensible, but because they serve a unique purpose. Words, in whatever sensible form they may occur, are the signs of sensible objects. These objects may be either external phenomena, internal feelings or words themselves. Two distinctions in respect to verbal entities are necessary:

- (1) Expressions that have a referent are distinguished from expressions without a referent. The former are words, the latter simply expressions.
- (2) General names are distinguished from proper names.

(1) A symbol-string is a word if, and only if, it has a referent. A symbol-string is an expression if, and only if, it has no referent. Hence no words are expressions, and no expressions are words. To determine whether a given symbol

string is a word it is necessary to determine whether it has a referent. Since words can be the objects of reference we may determine whether a given symbol-string is a word by ascertaining whether or not it is listed in a dictionary. We may determine this also by ascertaining whether or not someone uses this symbol-string to refer either to an external phenomenon or to an internal feeling.

An expression becomes a word when it is made the sign of some referent. When an expression has become a word it is no longer an expression.¹ Since for Johnson to name or to refer to is to mean, and since the terms "object named," "referent," and "meaning" are synonymous, it follows from the definitions that no word is meaningless, and that all expressions are meaningless. The notion of a word is here a semantical one, not a syntactical one. Any symbol-string might be a word or may become a word. But we cannot tell by looking at a symbol-string whether it is a word or an expression unless we already know it to be associated with a referent. We shall find that for Johnson, every word has some referent and that therefore every word is meaningful. Hence when Johnson speaks of meaningless words he employs the term "meaningless" in a special sense. The term "meaningless" obviously does not mean "devoid of reference."

¹Words could be defined as a sub-class of expressions but I wish to avoid the ambiguity in the term "expression" when the intersection of the class of words and the class of expressions is not empty.

(2) A word is a general name if, and only if, it refers to more than one object. A word is a proper name if, and only if, it refers uniquely to some object.

Johnson tells us:

The English language contains but a few thousand words, while objects to which we apply the words are innumerable. To effect these infinite appliances, every word receives many meanings. Snow is white, paper is white, silver is white, you are white, and the floor is white;¹

And therefore "language is a collection of general terms, but creation is a congregation of individual existences."² But though there are more objects in the universe than words, it is not the case that there exists an object which has no name. Consider the word "particular". Everything in the universe is named by this word since everything, according to Johnson, is particular. What is true, however, is that very few particulars have a proper name. The word "Eiffel Tower," is at this point a proper name for there exists a unique object to which it refers. But its status as a proper name is easily upset: I shall now call my typewriter an "eiffel tower," and from now on the word "eiffel tower" is a general name.

Johnson does not employ the term "proper name." He uses the terms "name" and "general name," and there are occasional ambiguities in his statements. He says, for example,

¹Johnson, A Treatise on Language, op. cit., p. 56 (Lec. III, par. 4).

²Ibid., p. 79 (Lec. V, par. 2).

Tastes, smells, sounds, and feels, are seldom designated specifically by names. Men have been more sparing of names to tastes, smells, sounds, and feels, than even to sights. Fragrant, fetid, and a few other words, are all that we have deigned appropriate to the information of the sense of smelling.¹

Again:

But not only numerous sights, sounds, tastes, feels, and smells, possess separately no name; many associations possess no name. We name such associations only as utility requires us to designate. A certain associated sight and feel we designate by the word square...²

Finally, when discussing different occurrences of white he tells us: "A perfect language should have a separate word for each of these appearances, and a separate word for every other phenomenon."³ Now when Johnson says "designated specifically by names," in the first quotation, he does not mean "proper names" for he goes on to enumerate a few of the names that we do have, and these are clearly general names. The same usage is involved in the second quote. But it is further evident that he is there taking the term "general name" in a special sense, for it is not the case that some "associations possess no name" as I observed in the case of the word "particular." Thus we must either make a second distinction between types of general names, or else not take Johnson's statements literally. The association of a certain

¹Ibid., p. 50 (Lec. II, par. 13).

²Ibid., p. 50 (Lec. II, par. 14).

³Ibid., p. 113 (Lec. VII, introduction).

sight and feel is called "square." There are numerous geometric configurations which do not have a more definite name than simply "geometric configuration" or, "particular," though they have some name. Thus I shall not add a further distinction, but interpret Johnson's statements in the above manner.

Consider now the third quotation above. Johnson is clearly speaking of proper names. According to Johnson there exist no two particulars which are identical such that if we were to name one of them the other would automatically have the same name. He observes that "No two existences are as identical in nature as in name."¹ Hence if every particular in the universe would be named by a different word, our language would consist solely of proper names.² Such a language would be ideal; but such is not ordinary language. The names in ordinary language, however, are the subject we wish to pursue further. Johnson tells us that the names of ordinary language

are at present so identified and confounded with external existences, that we cannot discover the subordination which language bears to the realities of nature, but are continually...imputing to nature limitations, classifications, ambiguities, imperfections, and properties, of various kinds, which truly belong to language alone.³

¹Ibid., p. 87 (Lec. V, par. 22).

²For further remarks on the possibility of an ideal language see Chapter II page 90 below.

³Ibid., p. 53 (Lec. II, par. 21).

We wonder what it is in the power of language to effect, and we find that Johnson allows language one function only, namely the referential function. Thus he claims: "Our senses alone can answer questions. Words can only refer us to what our senses reveal."¹ And in his conclusion Johnson lists as a major result: "I have shown that language can effect no more than to refer us to phenomena."² Notice therefore that the relation of reference is a triple relation: A word refers some person to some object. With this emphasis on pragmatics it is necessary to interpret the notion of reference as consisting of more than what is called "designation" or "denotation" in modern semantics. It means that and much more: it means also that some person is being referred to, guided or led by a word to an object. A word directs a person's attention to its referent; it gives him some guidance helpful in ascertaining that referent. But it cannot do more than this. It cannot, for example, reveal its referent (unless its referent is a word) for by (T2) only our senses can do this.

Unfortunately language even in its positive capacity is prone to mislead us, first by pretending that there exist objects which in fact do not exist, secondly by obscuring the intricacies of complex objects. Language is therefore more an evil than a blessing, and an investigation of language must

¹Ibid., p. 244 (Lec. XIX, par. 4).

²Ibid., p. 301 (Conclusion).

be concerned in the first place with its defects. These defects are irremediable: but they must nevertheless be pointed out:

The most I hope to perform is to make them known; as we erect a beacon, to denote the presence of a shoal which we cannot remove.¹

Johnson finds that nearly all problems of inexact reference or false implication are due to the generality of language. So long as we are alert to the difference between a universe of particulars about which we desire information, and a language consisting mostly of general names which we employ in our quest, and so long as we do not attempt to "make language the expositor of nature, instead of making nature the expositor of language,"² we shall not be frustrated and misled. But if we "reverse the order of nature"³ and let the features of language mislead us into believing that nature shares its structure, its generality, its universals, its implied identities, etc., then "we are in danger of wasting time in verbal inquiries."⁴

Let us therefore take a closer look at some of the difficulties which are entailed by the generality of language. We may distinguish four major problems of which the second and third are related: (a) Language implies the unity of complex

¹Ibid., p. 33 (Lec. I, par. 9).

²Ibid., p. 59 (Lec. III, par. 8).

³Ibid., p. 297 (Lec. XXIX, par. 12).

⁴Ibid., p. 30 (Lec. I, par. 3).

particulars and obscures their complexity. (b) Language implies the existence of universals; it takes account of certain generalities but disregards less obvious individualities. (c) Language implies identities between particulars; but no such identities exist except in language itself. (d) Language implies the existence of theoretical agents; but such agents are a contrivance of language only.

(a) "Language implies a oneness to which natures conforms not in all cases,"¹ and therefore "the oneness of natural existences must not be interpreted by their names, but by our senses."² We have noted earlier the difference between basic and complex particulars, and between intra-sensual and inter-sensual complexity. Now any particular, no matter whether it is intra-sensual or inter-sensual, is in some sense one thing, or in Johnson's terminology, a "unit." But the sense in which any particular is said to be a unit varies with the nature of that particular. A non-complex basic particular such as a given shade of red is more obviously one thing than the inter-sensual complexity called "orange." When we refer to nature for the unit orange we find four non-complex basic particulars: the sight orange, the smell orange, the feel orange and the taste orange. But we find also that these four particulars are associated in what Bishop Berkeley fittingly

¹Ibid., p. 55 (Lec. III, heading).

²Ibid., p. 55 (Lec. III, par. 2).

called a "bundle" of phenomena. This bundle is appropriately regarded as a unit. Johnson does not deny that complex particulars are units in some sense. In speaking of the complex particular gold, for instance, he says: "You may ask whether I mean to assert that gold is not a unit? It is a unit, but its oneness must be interpreted by what our senses reveal."¹

A rainbow, which is a basic particular of intra-sensual complexity, is more obviously a unit such as a shadow or a shade of red, than an orange. When we look at a rainbow we perceive the oneness "at a glance" as it were; but looking at an orange, unless we are not familiar with Johnson's analysis of complex particulars, we shall see only the sight orange. Of course we perceive the sight orange as a unit, but we only see the sight orange when regarded as a part of the complex orange. Thus there is more difficulty in perceiving the unit orange than there is in perceiving the unit rainbow, and it is this experimental fact which lends cogency to (T1), a theorem telling us that a combination of two sights is a third sight, and that this third sight is one sight.

The curious manner in which I have spoken here of seeing an orange, perceiving an orange, seeing an orange sight, etc., suggests that Johnson, on the basis of his analysis of types of particulars, might be interested in a revision of ordinary language. Let us speculate about what such a revision might

¹Ibid., p. 56 (Lec. III, par. 3).

involve. Consider the following list of statements:

- (1) Person A perceives an orange.
- (2) A sees an orange.
- (3) A perceives gold.
- (4) A sees an orange_S.
- (5) A perceives an orange_S.
- (6) A tastes gold.
- (7) A perceives music.
- (8) A sees an orange_F.
- (9) There exists an orange.

Let the term "orange_F" mean "feel orange," and let the term "orange_S" mean "sight orange." Similar subscripts shall be employed for other types of phenomena as necessary.

Note that in ordinary language both (1) and (2) imply (9). For Johnson, however, the implication between (1) and (9) might or might not hold, while the implication between (2) and (9) can never hold, because the term "orange" and the term "perceive" are ambiguous. on the basis of his analysis of perception and complex particulars. "Orange" might mean "orange_S" or "orange_F" etc.; and "perceive" might mean "see," "feel," etc., or all of these, or any combination of them. Let us first consider a revision such that (1) validly implies (9).

(i) We shall define the term "perceive" to mean "feel, smell, see, and taste," but we shall retain the ordinary meaning of orange, that is, we shall not split its meaning into five different terms. It is clear that in this system (1)

implies (9). But within this system it is impossible to assert (7), and moreover, (3) implies the absurdity (6). To remedy these defects it would be necessary to re-define the term "perceive" for each different complex particular, a task too cumbersome to provide the utility which is sought.

(ii) We shall instead split up the meaning of the term "perceive" so that five different terms for each type of perception are available. The ordinary meaning of orange is again retained. Statement (9) cannot follow from statement (1) in this system since (1) is not available. We can assert (2), but it is clear that (2) in this system engenders the same difficulties that we first encountered with (1). (2) in ordinary language implies (9). But not only can this implication never hold, the statement (2) is nonsensical. (2) implies the absurd statement (8) in this system since the term "orange" includes "orange_S", "orange_F", etc. We must therefore either amend the ordinary notion of "seeing" such that (9) does not follow from (2), or else split up the meaning of "orange."

(iii) Let us modify (ii) so that the ordinary notion of "see" is retained, but the meaning of "orange" is split, making available five different terms in place of one. In this system statements such as (2) will become statements such as (4). It is clear that (4) does not entail (9), if only because (9) is not available. That is, we now no longer have a name for the orange as a complex particular, but only names for its parts. To assert that such a complex exists would require that the

conjunction of five statements such as (4) be true. This conjunction would in turn entail a conjunction of five statements, namely, "Orange_S exists; orange_T exists; etc." Since no nonsensical statements are implied by any of the statements allowed in this system, the system is sufficient and precise. Unfortunately it is somewhat cumbersome.

Two other alternatives, equally precise but less cumbersome than (iii) are as follows:

(iv) The following modification of (ii) is preferable: We retain the ordinary meaning of "orange" and we adjust the meaning of "see" such that (9) cannot follow from (2).

(v) Let us keep the ordinary meaning of "perceive," but let us split up the meaning of "orange." In this system statements such as (5) become statements such as (4), that is, the meaning of "perceive" is automatically split by the choice of orange-word. Moreover, "perceive" can mean only one type of perception at a time. Finally, the ordinary notion of "see" need not be altered since statements such as (2) must also become statements such as (4); and (4) cannot imply falsely statement (9).

This last system seems by far the most preferable, and there are indications in Johnson's later writings that he would favor a system in which the term "orange" is split. Thus, in The Meaning of Words he suggests a system of word indexing.¹

¹Johnson, The Meaning of Words, etc., op. cit., pp. 89-91.

Inattention to the nature of complex particulars has caused errors in philosophical speculation. Johnson relates:

Bishop Berkeley perceived that the word roundness signifies a sight and a feel. He knew not that the duality of nature controls the oneness of the name. He supposed that the oneness of the name proves the duality of nature to be fallacious; and that either the sight is the true roundness, or the feel. He decided in favour of the feel, and hence he proclaimed roundness to be invisible:-- invisible because he restricted the name to the feel!¹

Word indexing might have helped in this situation. Had Berkeley said that roundness consists of roundness_S and roundness_F, and had he kept the difference in mind, he would have recognized that roundness_F is alone invisible, but that roundness is not invisible since it includes roundness_S.

Similarly when Hume argues that since the table which we see diminishes as we recede from it, and since the real table does not, and that therefore we fail to see the real table, he would have realized his error had he employed word indexing. Then he would have said: "The table_S diminishes as we recede; but the table_F suffers no diminution. If we say that the table_F is the real table, then indeed we cannot see it. But there is no reason to restrict the real table to the table_F, and hence it is perfectly proper to say that we see the real table."²

But not only Berkeley and Hume confused language with nature: "Estimating nature by the oneness of language is a

¹Johnson, A Treatise on Language, op. cit., p. 57 (Loc. III, par. 5).

²Johnson, The Meaning of Words, etc., loc. cit. (a paraphrase)

fallacy which enters deeply into every system of philosophy."¹ Johnson cites many examples especially from the works of the empiricists Locke, Berkeley and Hume, but also from some less well-known authorities: Blair, Saint-Pierre, Reid and Stewart. To correct the mistakes of their "enigmatic speculations" however, is not Johnson's main purpose: he discusses them "not to subvert them, but to elucidate the error on which they are founded."²

(b) The previous difficulty with language was said to be that it implied a oneness, or unity, in complex particulars which is analogous to the unity of basic particulars. A special case of this problem was seen to be connected with the information that we expect our senses to reveal when we are confronted by alleged units. If the unit is a complex particular whose constituents are revealed to us by different senses, as in an orange, then if we are misled by language we will erroneously believe that any sense alone reveals that unit to us. But each of the senses can reveal only its proper objects, and no sense by itself will indicate the unity of a complex particular.

The next problem concerns units which are nowhere to be found in nature, but which are a contrivance of language alone. We discover similarities among certain groups of things, and

¹Johnson, A Treatise on Language, op. cit., p. 72 (Lec. III, par. 12).

²Loc. cit.

ignoring the less obvious diversities among all things, or abstracting the generalities, we call groups of things by the same name. We continue abstracting and broadening our classifications. The taxonomy of the biological sciences is a good example. A certain small class of objects called "blackfish" are classified with other objects on the basis of increasing generality first in the species "onitis," then in the genus "tautoga," the family "labridae," the class "pisces," the order "amphibians," until finally as "animals" they are included among insects, horses and men! In classifying men "enough similarities are discoverable to make the word appropriate to all." The word "man" therefore,

refers to a mass of dissimilar individuals. Every word is equally general in its signification. By means of their generality, a few thousand words comprehend all created existences. Nature is a congregation of individual existences, and language a collection of general terms.¹

The generality of words in such situations has led many to believe that there exists a unit of a specific sort, often called a "universal," which is the archetype of the objects which share one name. Plato thought that a whole world of such archetypes, or "forms" as he called them, exists, of which all created objects are only imperfect instances. Others have thought that there exist qualities and relations which are units that various classifications of objects are said to have in common. All white things are so called because they have the unit "whiteness" in common; all true

¹Ibid., p. 79 (Lec. V, par. 2)

propositions share the unit "truth." But

the oneness of a thousand whites is verbal, and the oneness of a thousand truths is verbal. The unit is a creation of language; hence the fallacy, ambiguity, and difficulty, when we seek in nature for a corresponding unit.¹

(c) "Language implies identities to which nature conforms not."² "Language implies always a perfect identity; nature exhibits, in some cases, a greater approximation to identity than in other cases." Johnson explains:

For instance:--in two flakes of snow, the snow presents an identity which is almost complete; but in a whale and an anchovy, the fish of both animals presents a very incomplete identity. The fish of the whale and anchovy is, however, as identical verbally, as the snow of the two flakes.³

Johnson's usage of the terms "imply" and "identity" are very odd. I think we intuit his meaning sufficiently, but it is very difficult to make it precise. First of all, I do not think that Johnson means to speak of logical identity since his "identity" admits of degrees. Even when he says "perfect identity" I do not think that logical identity is intended. Let us substitute the term "similarity" for the term "identity" in Johnson's writings. Now we can speak of degrees of similarity, and it is clear that the degree of similarity decreases with each of the following pairs of objects: "snow"

¹Ibid., p. 73 (Lec. IV, par. 3).

²Ibid., p. 79 (Lec. V, heading).

³ Ibid., p. 81 (Lec. V, par. 7).

and "snow"; snow and snow; whale and anchovy. We might even construct a "calculus of similarity" by first assigning numerical values to given degrees of similarity, perhaps on a purely intuitive basis, and then by determining a set of inference rules governing statements which contain similarity expressions. If we let the connective " $\stackrel{1}{=}$ " represent the highest degree of similarity, then the following is a theorem in Johnson's similarity calculus: "It is not the case that for any object x, there exists an object y, such the $x \stackrel{1}{=} y$."

The following argument leads to the error which Johnson is solicitous to avoid:

1. "fish₁" $\stackrel{2}{=}$ "fish₂"
2. "fish₁" names whales
3. "fish₂" names anchovies
4. Objects exhibit similarity of degree 2 if they are named by words exhibiting similarity of degree 2
5. Therefore: whales $\stackrel{2}{=}$ anchovies

But, says Johnson, degree 2 is far too high a degree of similarity for that which as a matter of fact obtains between whales and anchovies. Hence the argument is invalid. Premise 4 is not true of whales and anchovies, though it might be true of two snow flakes. Just because there is occasionally a correspondence between the degree of similarity of names and the degree of similarity of the objects named by them, does not mean that this is always the case. It is our tendency, nevertheless, to regard premise 4 as invariably true. And thus

when Johnson says that "language implies..." it is an elliptical way of saying that "the conjunction of premises one through four implies..."

It may be thought that the argument above is so obviously mistaken that it is not conceivable that anyone would commit the fallacy. Johnson, however, adduces many examples of such fallacies from ordinary discourse as well as from philosophical speculations. Thus when physicians find that their remedies do not work in a given case, though they have never failed previously, they charge nature with an anomaly.

The anomaly is, however, in language, which unites under one name, as identities, what is only partially identical. Individuality is no anomaly of nature. It is nature's regular production, and boundless richness.¹

We may now understand the metaphysical puzzle of Hume, that there is no visible union between any cause and its effect. The union to which he referred is the sight and feel exhibited by the links of a chain. But such a union can never be intended by any person who asserts that a cause and its effect are united.²

For one thing, if the link between cause and effect were like the links of a chain, it would be necessary for cause and effect to occur simultaneously. The problem however is to be found in the high degree of similarity between the link of a chain and the link of cause and effect which the term "link" implies.

¹Ibid., p. 80 (Lec. V, par. 5).

²Ibid., p. 84 (Lec. V, par. 13).

I earlier suggested that there is a connection between problems (b) and (c), and this should now be evident. To be mistaken in point (b) requires that we must first commit fallacy (c). That is, in order to suppose that universals exist, or that common properties exist, we must first be misled by language into supposing that there always exist high degrees of similarity between things or between parts of things.

(d) A different version of fallacy (b) is to seek in nature not for universals or identities, but for a different sort of unit which we suppose must exist, but which our senses fail to detect. To assert this constitutes in itself what Johnson calls a "sensible contradiction":

We are vigilant in detecting verbal contradictions, but we never detect the sensible contradiction which exists in affirming the presence of sensible existences, where none are discoverable.¹

When we are misled by language, however, we ignore the truth that we can discourse meaningfully only of what our senses disclose, and we invent theories to augment the sensible deficiency. We postulate what Johnson terms "theoretical agents,"² and explain the processes of nature by subtle powers:

--for instance, the unit magnetism is alleged to be some subtle and invisible emanation or fluid;--the unit temperature is another radiating and insensible fluid;--gravity another. The unit vitality is an irritability of fibre, and the unit sound is a vibration

¹Ibid., p. 114 (Lec. VII, par. 2).

²Ibid., p. 226 (Lec. XVII, par. 10).

of the atmosphere. The unit is sometimes deemed an undiscoverable essence; sometimes an agitation of the brain; sometimes an insensible repulsion of insensible parts; sometimes an internal combustion; and sometimes an external explosion.¹

That such theoretical agents are insensible follows from (T3), and hence to assert that they are sensible is not a "sensible contradiction," as Johnson supposes, but a verbal one.

But what is gravity? According to Johnson it is no one entity, power or force which has a real existence in nature; it is the collection of all the processes and events which we adduce as examples of gravitational activity. Just because we apply the same word to each of these is not a sufficient ground to claim that there exists the unit gravity. Thus the word "gravity" refers after all to certain sensible events, etc., and hence it can be employed meaningfully. It is meaningless only if we mistake the type of object to which it refers. The topics of meaning and meaningfulness must now be discussed in greater detail.

Verbal Meaning, Sensible Meaning and the Relation of Reference

I would like first to characterize and explain the relation of reference. We have found that reference is usually a one-many relation obtaining between words and objects, i.e., between

¹Ibid., p. 78 (Lec. IV, par. 17).

signs and significations, referents or meanings. Words are nearly always general in that each refers to many objects. Occasionally the relation of reference is a one-one relation. Some words are proper names which refer to one unique object. In what Johnson considers a "perfect language," all words are proper names, and hence in such a language the referential relation would be exclusively a one-one relation.

It was observed, furthermore, that referent is for Johnson identical with meaning, and therefore what a word refers to is simultaneously what that word means. As Johnson says, "the sensible signification of a sentence is the sensible existence to which the sentence refers."¹ Sentences are complex names which refer to and hence mean states of affairs. Simple names, or words, function in the same manner.

I indicated also that reference exhausts the capabilities of words, that is, a word can only refer us to its referent, it cannot reveal it to us in any significant sense, unless the referent happens to be another word or phrase. Only our senses, however, can reveal sensible referents. Only our senses may continue to "question" significantly the nature of referents after words have led us to them, and only the information that our senses disclose can be properly said to be about referents. To ascertain the nature of an object, an examination of words is therefore fruitless. A question of the form "What is x,"

¹Ibid., p. 168 (Lec. XII, par. 4).

where x is any phenomenon whatever, is not a real question at all but a request to be referred: "X is the name of a phenomenon which I wish to examine, and I would like to be directed to it."

Now it may be thought that it makes sense to question the nature of a complex particular, because some answer not given by our senses would seem relevant. Thus, for example, we said earlier that a complex particular is a particular constituted by the information of more than one sense. Now this statement is indeed an answer to the question "What is a complex particular?" But it is a verbal answer, not a sensible one. The sensible "answer" can be revealed only by our senses. Similarly, the referent of "referent," or the meaning of "meaning" cannot be discussed if we are interested in determining its nature. We may make distinctions, that is, we may analyse the name "meaning" and thereby indicate that meaning is complex, and that if we are to investigate it we must expect to find various phenomena corresponding to the names which we distinguish. But even in this procedure there is a danger: we may be interpreting nature by language and not language by nature. If our analysis of "meaning" indicates that meaning is complex then we may use this analysis as a guide to nature. But if we should find no such complexity in nature as our analysis implies then we would commit the above fallacy if we were to continue our search for complexity, or

perhaps postulate non-sensible entities which exist as referents of our analysis.

I observe further that the word "refer" means much more than the modern term "designate." It is of great importance in Johnson's system to stress the personal element: a word refers someone to its referent; and a word has a referent only for someone. Thus the relation of reference is not a truly diadic relation at all. It is a triadic one involving names, nameable objects and persons. The relation holds between a sign and its signification as imposed arbitrarily by some person. It is imposed whenever those desirous of communication feel it necessary to employ signs. After a sign has been correlated with some referent by some person, a constant conjunction is established between them through usage. A person acquainted with both the sign and its referent as well as their concomittance (for which he is responsible, or about which he learns through experience) will know when he sees (or hears) the sign what other object is connected with it; and he will therefore understand a communication or will be able to make a communication.

Finally, I indicated that a distinction is to be made between sensible and verbal meaning. In an attempt to construct an adequate definition of these concepts it is imperative to include the personal element since for Johnson the relation of reference is a triadic one, and since objects of reference are

identical with meanings. The following definitions capture the essential meaning of these notions:

- (a) A word has sensible meaning for any person if, and only if, it refers to a sensible referent in that person's subjective universe.
- (b) A word has verbal meaning for any person if, and only if, it refers either (1) to a verbal entity which that person understands, or (2) to a sensible entity not in that person's subjective universe, or (3) to alleged non-sensible entities.

Recalling the distinction between words and expressions made earlier, we may say that all words have either sensible meaning or verbal meaning, and the qualification "entity which that person understands" in definition (b) insures that verbal meaning is not equated with meaninglessness. Johnson does not make this qualification explicitly; but without it the phrase "reference to words" is vague and can lead to various confusions as I shall show presently. Notice further that the definitions allow for the possibility that a word may have both verbal and sensible meaning. A word may refer both to a sensible entity in the subjective universe of some person and to a verbal entity such as the string of words which constitutes its definition. Indeed, this is precisely what Johnson wishes to maintain for he tells us that "Nearly every word possesses a verbal meaning as well as a sensible meaning."¹ The emphasis on subjective universes makes it possible that the same word have different meanings for different persons, and that the

¹Johnson, Treatise, p. 149 (Lec. X, par. 11).

meaning of a word is dynamic: it may grow as any given person's sensible knowledge increases. Thus Johnson observes that "A word which at one time signifies a word, may, at another time, signify a sight, etc."¹

The following illustration will make these points clear. A child before it has acquired a language cannot know verbal meanings though it may know sensible meanings. We cannot of course say that it knows words which have sensible meaning since it knows no words. It knows sensible meanings in so far as it knows sensible objects which could in principle become the sensible meanings of words. The same cannot be said for verbal meanings since verbal entities are not available to the child; and since sensible objects in another person's subjective universe, as well as non-sensible "entities" are accessible to a given person only through the medium of words (if they are to be apprehended as verbal meanings only) the child shall of course not know verbal meanings in the last two senses either.

Now suppose that the child learns the word "orange" and finds that it is connected to a certain reddish-yellow ball, that is, whenever this ball is present it is appropriate to utter the word. The child has never felt, tasted or smelled the orange, and therefore the word has no more and no less meaning for it than what is exhibited to the child when it looks at the orange. The child's mother, on the other hand,

¹Ibid., p. 164 (Lec. XI, par 15).

has experienced all aspects of this complex particular, and hence for the mother the word "orange" has much more sensible meaning. For her it means the sight, feel, smell and taste of the orange. The child's father who is unfortunately blind, is not favored with as much sensible meaning since though he has experienced at least the taste, smell and feel of the orange, he is of course incapable of ascertaining the sight. To tell him that the orange looks reddish-yellow is to give him verbal knowledge only. Were he to regain his sight, this verbal knowledge might well be converted into sensible knowledge.

The child meanwhile has come to know a few more words and is now capable of knowing verbal meanings. It has learned, for instance, that an apple's taste which it has experienced, may be called "sweet." It has not yet learned the taste of an orange. Therefore, when the child is told that the orange also tastes sweet the description will have only verbal meaning for the child. And therefore the word "orange" has at this point both verbal and sensible meaning for the child since it knows the sight orange by acquaintance and the taste orange by description. Suppose finally, that the child throws an orange against a wall and that the orange thereupon emits a strange thumping sound. The word "orange" will from then on include in its sensible signification for the child the strange sound that it witnessed.

It may be objected here that such accidental features as the sound which an orange emits when thrown against a hard

surface does not constitute an essential part of the meaning of that word. Furthermore, the meaning of "orange" is static whether anyone knows it or does not know it, i.e., whether anyone has experienced the aspects of an orange or not. The word in fact means "a large, roundish, many celled, juicy, acid or sweet fruit enclosed in bright, reddish-yellow, tough rind." This objection, however, is justified only if the personal element in the relation of reference is overlooked. If the relation of reference is construed as a diadic one, obtaining only between names and nameable objects, then the following characterization of reference, different from Johnson's, is possible. We may distinguish meaning from referent. The meaning of a word is a description of a set of properties as that of an orange above. The referent of a word, on the other hand, is any object which satisfies that description. The description is thought to present the essential features of such objects, but the objects may have an infinite number of accidental features none of which constitute a part of the meaning of the word which refers to them.

This theory is by no means Johnson's view. For Johnson the meaning of a word cannot be independent of the knowledge-state of some person, and the referent of any word consists for that person, of only those features of an object with which the person is acquainted.

The meaning of words is often much more complex than our illustration above suggests. We may distinguish, for example,

two kinds of sensible meaning: cognitive and emotive. If a word refers to either an external or internal phenomenon I shall say that it has cognitive meaning. Emotive meaning results when words merely purport to refer to phenomena but receive their significance from an emotional source; as for example,

The words eternity, heaven, hell, angel, redemption, resurrection, faith, and many other words of sacred import, are connected, in religious men, with certain internal feelings which give to the words a pungency and unction.¹

Emotive meaning is by no means restricted to words of a religious nature. Words such as

ghost, witch, spectre, fairy, sorcerer, and a multitude of other words, derive their principal signification from the internal feelings with which they are associated.²

It is possible, furthermore, for a person to mistake the sensible referent of some word. This may happen in the following way: The word "pressure" usually "refers to the effort of my hand against this table" and hence "names a feel." But we are tempted to attribute the ascent of water in a vacuum to pressure also. The word in this situation, however, "signifies all to which we refer in proof of the pressure."³ That is, the word does not in this situation signify a feel; it signifies the entire situation of water

¹Ibid., p. 160 (Lec. XI, par. 3).

²Ibid., p. 161 (Lec. XI, par. 7).

³Ibid., p. 226 (Lec. XVII, par. 10).

rising in a vacuum, and no more. According to Johnson, a word that names such items as the insensible hypo-constructs of physics is significant of the experimental evidence or the associated conditions of such constructs. But we frequently make the mistake of supposing that these experimental situations are not really the meaning of our words at all, and that the meanings of words such as "atom," "weight," "pressure," "temperature," etc., are definite entities which we happen not to be able to perceive. But our intentions are for Johnson no sufficient ground why the meaning of words which refer to hypo-constructs should have sensible meaning which we cannot perceive. Indeed, by (T3) such claims are absurd; and by definition (b) if we intend to refer to insensible entities then the meaning of the words with which we refer to them can be only verbal.

According to Johnson,

Much error occurs in our speculations when we omit to discriminate between the verbal meaning of a word, its sensible meaning, and its meaning that refers to our internal consciousness.¹

If we distinguish between revealing meanings and referring to meanings we discover an additional difference between verbal and sensible meaning. "The senses alone can reveal to us the sensible signification of words."² On the other hand, "Words

¹Ibid., p. 166 (Lec. XII, heading).

²Ibid., p. 166 (Lec. XII, par. 2).

can yield us nothing but the verbal signification of words."¹ Hence, though words may refer both to sensible and to verbal meanings, they can reveal only verbal meanings. We cannot ask a genuine question unless we inquire into the verbal meaning of a word. Only then can we expect our answer in words. Let us consider an example:

Professor Brown says, 'power is nothing but invariable antecedence.' Is it nothing but those words? If he is speaking of the verbal signification of power, it may be what he says.²

If Professor Brown is seeking the verbal meaning of "power," then not only may we refer him to it, we may actually give it to him, for it is clear from the above example that the verbal meaning of words may be other words. Professor Brown may, however, be interested in the sensible meaning of "power." If so, only his senses can reveal it to him. Johnson indicates the sensible meaning of "power" with the variable x to show that it cannot be revealed by words.

Power is, therefore, x . But Mr. Brown says it is invariable antecedence; therefore, invariable antecedence is the same x . The like may be said of every phrase into which you may resolve the word power. The sensible signification (x) remains independent of our language, and unaffected by it.³

The situation here in respect to sensible meaning is clear: the word "power" and the phrase "invariable antecedence" both

¹Ibid., p, 166 (Lec. XII, par. 3).

²Ibid., p. 159 (Lec. XI, par. 1).

³Loc. cit.

signify the same x and have therefore the same sensible meaning. The word and the phrase may be said to be co-extensional; they are alternative names for the same sensible particular. The verbal meaning of either one of them, however, is simply the other. The verbal meaning of the word "power" is the phrase "invariable antecedence," or any other phrase that is suggested as a definition of the word; and the verbal meaning of any such phrase in turn is any other phrase, or the word "power."

But the notion of verbal meaning here is not clear. Does the word "power" mean the expression "invariable antecedence" or does it mean those words? If it means the former then its meaning is not really verbal at all (whatever verbal might mean) but sensible, for it would then be the name of 21 ink marks which are sensible phenomena. This however, is simply not what the word "power" means. Hence it must mean the words "invariable antecedence." But what does it mean to mean words? Is it to mean the meaning of those words? Since the meaning of words by our distinction is the individuating feature between expressions and words, and since "power" does not mean the expression "invariable antecedence" it follows that it must mean the meaning of the phrase "invariable antecedence." The meaning of this phrase is either verbal or sensible. Now if "power" means the verbal meaning of "invariable antecedence" then "power" means "power"; but if it means the sensible meaning of those words then it means x . If "power" means x

then it fails to have anything but sensible meaning; but if it means itself by the other alternative, no one would maintain that this is to have meaning in any sense.

There is yet another difficulty with this notion of verbal meaning. Suppose that we are told that the word "glib" means verbally the word "glub," and that they both sensibly mean y. Generally we hope that to give a verbal equivalent to any word whose meaning is not clear will clarify its verbal meaning. But how can the word "glub" clarify the meaning of the word "glib"? Only if we know what the word "glub" means. Now "glub," according to Johnson's view will mean sensibly y and verbally "glib." Neither of these meanings, however, will give us an understanding of the meaning of "glib." To be told that the word "glub" means the word "glib" is obviously pointless. And to be told that the word "glub" means y is redundant since we might have started by saying that the word "glib" means y without introducing the word "glub" at all.

Now Johnson is certainly correct when he asserts that whether we call the object y "glib" or "glub" is irrelevant to determining the nature of it. Nevertheless, we constantly offer definitions as an aid in discovering what it is that some word refers to. And though we cannot determine the nature of y in this manner, we can determine the reference, that is, we can determine that it is in fact an object such as y to which the word "glib" refers. But in order to determine even

this much, our designation "glub" must have some meaning other than that which Johnson proposes, that is, it should mean in addition to "glib" and y, something else.

This something else shall be those conditions in virtue of which "glib" is meaningful. Let us examine a concrete example. Consider the term "unicorn" and suppose its meaning were not known to you; for example, you would not know that there fail to exist entities named by that word. Now it is clear that the word can be explained to you. I can begin by telling you that an unicorn is an animal with certain peculiarities: a single, spiral horn, a horses' tail, etc. In fact, I can give a definition of the word "unicorn" by listing all its essential features, i.e., those features which any entity must satisfy in order to be properly called a "unicorn." Only if I have given such an explanation of features will you be able to recognize a unicorn should you happen to find one. But the description must be understood by you. It cannot consist of words which are unintelligible. Therefore the words of the description must themselves have sensible referents, or must refer to other words which have ultimate sensible referents with which you are acquainted. That is, in order that you understand the description of a unicorn it is necessary that you know what a horn is, how such an object is spiral, what a horses' tail is, etc.

The following interpretation of verbal meaning is therefore in order. A word shall have two referents: a sensible referent

and a string of words which is the description of this sensible referent. The sensible referent will constitute the sensible meaning of the word; the string of words its verbal meaning. It is possible to mean the string of words only if that string is understood by the person who uses the word which refers to it; and the person understands this string if he is acquainted with the sensible referents of its elements. Note that this interpretation is in accord with the earlier definition (b) of verbal meaning. As this definition indicates, there are other types of verbal meaning as well. Johnson writes, for example:

When words attempt more than a reference to the revelation of our senses, the words may possess a verbal meaning, but not a sensible meaning.¹

This situation can arise in several ways. If a blind man uses words which name sights, his words have only verbal meaning for him since he cannot be acquainted with their sensible reference. But such words will have sensible meaning for the person who has seen the sights which they name. Verbal meaning in this sense is not reference to other words, but reference to sensible phenomena not in the person's subjective universe. This is quite evident with words that have no obvious definition. If a blind man uses the word "red", it is said to have verbal meaning for him. But the word "red" is not definable. Johnson tells us,

¹Ibid., p. 174 (Lec. XII, par. 19).

I have shown that we possess words which signify phenomena only, as white, sour, pain, loud, etc., and that we have other words which sometimes signify phenomena and sometimes words...still another class of words that never signify phenomena but words only."

And he concludes:

... we may easily see why some words are definable, and others² not. Words are definable when they signify other words.

The meaning of the word "red" then, is not verbal in the sense that it refers to words but verbal in the sense that it fails to refer to sensible phenomena. The word may nevertheless be employed significantly even by a blind man. He knows, for example, in what connections the word is used by others (e.g., as a predicate of ripe fruits), and he can therefore use it significantly. A blind man will ask for a red apple rather than a green one because he knows that what is called "red apple" usually tastes better than what is called "green apple."

The third possibility as stated in the definition (b) is verbal meaning resulting from a reference to non-sensible "entities." According to Johnson a student of theoretical physics

...usually acquires by his study, a knowledge of the verbal ingenuity of man, but not a knowledge of the sensible realities of the universe.³

¹Ibid., p. 152 (Lec. X, par. 12).

²Loc. cit.

³Ibid., p. 174 (Lec. XII, par. 19).

Johnson has in mind the inquiries into hypo-constructs which play an important role in the physical sciences, and which have verbal meaning as long as we suppose that they refer to imperceptible objects. We noted earlier that a statement about atoms, for example, will have sensible meaning as long as we do not attempt to make it significant of more than the experimental data available. For this purpose

We should discriminate between theoretical agents and sensible agents. A sensible agent is something which our senses discover; but a theoretical agent is something which is only supposed to exist.¹

If we attempt to refer to anything more than the experimental data with which our theoretical agent is connected, then our words have verbal meaning only. Verbal meaning here means reference to non-sensible entities which are alleged to exist.

A word may, however, have verbal meaning in several senses at once. The word "red" may not only have verbal meaning in the sense of failing to refer to sensible phenomena, but also in the more positive sense of referring to words which a person understands. Thus, for example, it might be said that red is that color which lies furthest from the convex side of a rainbow's curve. This, however, could not be the verbal meaning for a person without eyes for he could not understand the description: the words "color," "rainbow," "convex," and "curve," are names of sights which a blind man has not seen.

¹Ibid., p. 226 (Lec. XVII, par. 10).

Now it may be maintained that these words have themselves verbal meaning for they mean other words, and these words in turn mean other words, and so forth. But I do not think that the blind man will ever understand any of these unless they are ultimately grounded in sense experience. That is, such words will not have verbal meaning for him unless they are ultimately connected with some experience. The experience need not be a sight; it can be a feel. Thus the word "curve" may mean a certain feel to a blind man and hence we can say that the word "red," explained in terms of such words as "curve," will have verbal meaning for him since he understands the words into which the word "red" is resolved.

Similar remarks apply to words which name theoretical agents and have verbal meaning in the third sense. These words generally have verbal equivalents and hence have verbal meaning in the sense of referring to other intelligible words.

I have said that all words have a meaning by definition. Therefore when Johnson says "When we employ a phrase without referring to any discoverable existence or operation, the words are divested of signification," he cannot mean that these words are meaningless in the modern sense of the term. What he means to say is simply that the words do not have the meaning that was perhaps intended for them: that when sensible meaning is intended they actually have verbal meaning. Sometimes Johnson qualifies the term "insignificant" as to make this clear:

When a blind man talks of colours, the word is sensibly insignificant to him, and every word is equally insignificant to us when it refers to the external universe, and attempts to speak of what our senses cannot discover.¹

It is contextually clear that when Johnson says "equally insignificant" he really means "equally sensibly insignificant." Occasionally, however, Johnson's exclamations regarding the lack of sensible referents are quite vociferous: he speaks of words as "empty salvos," "vacated sounds partaking of nullity," or entities returning to their "pristine insignificancy." But here again the words are not entirely meaningless, and the verbal meaning which they do have is often only a relative matter, that is, words usually have verbal meaning only because of the limitations of the subjective universe of any given person who uses them. Should that person's experience be enhanced by further sense information, his words may well find sensible meaning.

¹Ibid., p. 245 (Lec. XIX, par. 5).

CHAPTER II

LANGUAGE AS A TOOL IN THE ACQUISITION OF KNOWLEDGE

The exposition of Johnson's semantics presented in the last chapter suggests a number of interesting questions concerning language, knowledge and communication. Some of these questions find an answer in Johnson's later writings; the answer to others must remain largely conjecture. The following questions are the basis for the present discussion:

- (1) What is the nature of the defects which language is said to contain?
- (2) What are the limitations of language, and what does Johnson propose to do in regard to them?
- (3) Is Johnson willing to abandon ordinary language, does he merely propose a reform, or does he wish to leave it as it is?
- (4) What is Johnson's conception of knowledge? Is this conception adequate?
- (5) Does Johnson prefer sensible knowledge and disparage verbal knowledge?
- (6) What is the relation of language to knowledge? Is language capable of adding to our knowledge? Is communication of knowledge possible?

Language and Linguistic Principles

In an attempt to mark the limits of significant discourse Johnson in the course of his Treatise endeavours to expose the capabilities and incapacities of language. Two types of incapability must be distinguished. Language is said to contain defects which are certain special features of it that can lead

to errors; and it has limitations, by which I shall mean that there exist functions which language is unable to perform. I shall say, further, that a defect differs from a limitation in that it is a feature which could in principle be corrected. A limitation, on the other hand, is a restricted function, or inability, which is intrinsic and incorrigible.

Let us now inquire whether Johnson believes that language contains defects in the above sense. We are told that, since language is of great importance in human activity,

...the duty is imperative of becoming acquainted with its defects; especially if it contains any which have hitherto escaped detection:--and such it actually contains.¹

We discover subsequently that the two most prominent "defects" in language are its artificiality and its generality. The distinction between verbal and sensible entities indicates that there exist major differences between words and objects. Words are only the signs of objects, and objects signified are the meaning of words. But words are not identical with their meaning--a simple insight which is frequently disregarded. We erroneously think that words are the objects which they only signify, or that they are so much like such objects, that we are prone to take words for objects. But words are artificial:

As bank notes are the artificial representatives

¹Johnson, A Treatise on Language, op. cit., p. 31 (Lec. I, par. 6).

of specie, so words are the artificial representatives of natural phenomena.¹

Generality in language is said to be another defect leading to vacuous speculation. "The generality of language is an irremediable defect in its structure."² Since phenomena are particular yet exhibit certain similarities, and since phenomena of different senses are frequently associated, language designates many phenomena and associations of phenomena by one name. In this consists the generality of language. Unfortunately, the fact that phenomena and associations of phenomena are thus named by a single word has caused much erroneous speculation about the universe and its objects. Among the errors that occur are the suppositions that universals exist, that theoretical agents exist as specific units, that nature exhibits identities, and that units such as complex particulars are no different than units such as non-complex basic particulars.³

The curious thing about these features of language is that they are said to be irremediable:

The verbal defects which these discourses will discuss, are inseparable from language, and differ from any defects that you may anticipate...I also allude to none that can be obviated. The most I hope to perform is to make them known.⁴

¹Ibid., p. 174 (Lec. XII, par. 18).

²Ibid., p. 57 (Lec. III, par. 4).

³See Chapter I, page 56ff above.

⁴Ibid., p. 33 (Lec. I, par. 9).

But if certain features of language which are said to cause errors in speculation cannot be obviated then is there any reason in calling them "defects"? Or is Johnson mistaken in supposing that they are inescapable, and therefore correct in regarding them as defective? We find in the Treatise occasional reference to an "ideal language" which, if it existed, would avoid generality by containing enough words in its vocabulary to provide every particular with a proper name. If such a language were possible then it would constitute a genuine alternative to ordinary language in respect to generality. And therefore, since generality is in principle escapable, we are correct in calling the occurrence of generality in ordinary language a "defect" in the sense discussed above.

But is a language consisting entirely of proper names possible? Johnson observes:

...were we to invent a separate name for every sight which we now denominate white, language would be too voluminous for utility, and perhaps for our memory.¹

White is applied to snow, to this paper, to the glass which composes our windows... A perfect language should have a separate word for each of these appearances, and a separate word for every other phenomenon; but language thus precise would be too copious for our memory.²

Thus there are practical difficulties involved in the acquisition of an ideal language. Nevertheless, it would

¹Ibid., p. 57 (Lec. III, par. 4).

²Ibid., p. 113 (Lec. VII, introduction).

seem that if we were prepared to accept the burden of prolixity, we may avoid generality if we so desire. A close examination of the ideal language reveals, however, that the prolixity would be so extensive as to make it impossible for anyone, even with the best intentions, to know the names of all objects. Indeed, the vocabulary of this ideal language would have to be infinite since words are themselves nameable objects. Moreover, there are other difficulties with such a language. John Locke correctly observed that

...a distinct name for every particular thing would not be of any great use for the improvement of knowledge; which, though founded in particular things, enlarges itself by general views; to which things reduced into sorts under general names, are properly subservient.¹

And finally there is some question whether such a system of words deserves to be called a "language" at all. Locke tells us in respect to such a system:

If it were possible, it would yet be useless; because it would not serve to the chief end of language. Men would in vain heap up names of particular things that would not serve them to communicate their thoughts.²

The prerequisite to successful communication, according to Locke, is that those who wish to communicate must share similar ideas. Only if my words excite ideas in you which are similar to ideas that my words are the signs of in me, can I inform you of my thought, or of new knowledge. But if all words are proper names then either what I say is unintelligible to you,

¹John Locke, An Essay Concerning Human Understanding, Book III, Chapter II, par. 4.

²Ibid., par. 3.

or else the information that I give you is not new. Johnson recognizes this problem also but makes no reference to it until in his last work on semantics. He remarks there: "...if men converse together about only such things as they had seen in identity, but little verbal communication would be possible."¹

There is therefore little reason in rejecting ordinary language, or in calling its features "defects." I shall indicate that Johnson's tendency is to gradually come to regard generality as an asset and not a defect. This attitude is particularly conspicuous in his later writings in which he frequently asserts that the "ineradicable ambiguity of language is a blessing rather than an evil."² But how, it may be asked, can generality be a blessing when, as we saw in the second section of Chapter I, a host of errors is attributed to it? Are these errors perhaps not caused by generality?

From some passages in Johnson it appears that a distinction between language and linguistic discourse is necessary. Some sections of the Treatise deal with language, a system of sounds used as signs of phenomena; other sections deal with linguistic discourse, or the employment of such a system of signs. The difference, I think, is crucial. Ordinary language is, as Wittgenstein later said, in order as it is. It is only linguistic discourse, as Johnson recognizes in some passages at least, which is defective. Errors occur not because

¹Johnson, The Physiology of the Senses, op. cit., p. 24

²Johnson, A Treatise on Language, op. cit., p. 31 (Lec. I, par. 6).

language causes them, but because the users of language do not understand its features and hence frequently abuse it.

Johnson writes:

Verbal discourse contains defects which have escaped detection.¹ (*my italics*)

...when you read the conclusions of opticks, of physiology, and chymistry, may you not infer, that if such doctrines are incontestible by logick, the doctrines are more repugnant to reason, than the belief that some latent sophistry exists in the language by which the doctrines are expressed, or in the processes by which the doctrines are sustained?²

Hence we may say that it is not language but linguistic discourse which Johnson recognizes to be defective. Generality and artificiality, as well as any other feature of language, are not defects. These features, however, are responsible for certain limitations of language and these, in turn, govern the extent of significant linguistic usage. Artificiality, for example, is responsible for the limitation of language in respect to its ability to reveal sensible knowledge; and this limitation imposes restrictions on meaningful discourse. Though the producers of language, the authors of metaphysics, theoretical physics, and other speculation, are most frequently cited by Johnson as misusing language, the consumers, or the readers of such works, are equally responsible as perpetuators of these errors. The producers misemploy language; the consumers misinterpret the results and thereby aggravate the

¹Ibid., p. 32 (Lec. I, par. 7).

²Ibid., p. 33 (Lec. I, par. 10).

perversion. So much then for the alleged defects of language. Let us now discuss the limitations which are induced by its special construction. We pass therefore to the second question: What are the limitations of language, and what does Johnson propose to do in regard to them?

Most of the major linguistic principles that elucidate the limitations of language are derivable from the two features of language that I have discussed--artificiality and generality--in conjunction with the theorems of Johnson's epistemology. Part of the notion of artificiality is contained in the following statement which Johnson regards as asserting an essential property of language:

Every word is a sound, which had no signification before it was employed to name some phenomenon, and which even now has no signification apart from the phenomena to which it is applied.¹

Thus we find that language is artificial in the sense that meanings are given to certain sounds, or, certain sounds are used as names of objects, and the connection is established quite arbitrarily. The quotation bears out in addition the important fact that language is dependent on phenomena for its significance. Arbitrary designation and dependence on phenomena, however, are not the only aspects of artificiality. The seemingly trivial but highly important fact that language is not identical with its meanings, that is, words are only the

¹Ibid., p. 97 (Lec. VI, introduction).

representatives of objects and not the objects of knowledge themselves, must also be recognized as determining artificiality. The following principle, I think, is sufficient as a basis for all the others which Johnson wishes to derive from the artificiality of language:

- (P1) Expressions, which are sounds or sights, become words when they are arbitrarily assigned to phenomena of which they are only imperfect representations.

The above principle entails, in conjunction with certain theorems, Johnson's central insight concerning the relation between language and sensible knowledge. The following quotations makes clear what Johnson has in mind regarding this relation:

When the Lord answered from the flaming bush the inquiry of Moses, by saying 'I am that I am,' the answer was wonderfully expressive of the nature of language, which can in no instance accomplish more than it effected in that.¹

Words may direct my attention to what I should not have otherwise noted in x, but they cannot reveal to me any part of x,--they cannot perform the office of the senses.²

This point, which is unquestionably Johnson's major contention throughout the Treatise as well as in his later writings, may be formulated in the following principle:

- (P2) Language is limited in its exposition: it cannot provide sensible knowledge though it may lead us to it.

¹Ibid., p. 244 (Lec. XIX, par. 11).

²Ibid., p. 166 (Lec. XII, par. 2).

The above principle may be derived in several different ways. We might simply say that according to (T2) only the senses provide us with sensible knowledge. Language, which is obviously not a sense but merely the object of several senses, cannot therefore reveal anything. It may indeed reveal itself through the senses. But by (P1) language is not identical with its objects. Hence though it may reveal itself it cannot reveal meanings.

Another possible derivation is the following. Words are sounds or sights. Suppose that the object named by some word is either a taste, a feel, or a smell. By (T2) we cannot know such an object when hearing or seeing the word which names it, because a sound or sight cannot reveal a taste, feel, or smell. Now suppose that the object which a word names is either a sound or a sight, different from the sound or sight of the word. By (T4) it is clear that from the word alone we cannot sensibly know its object, because no sight can reveal any other sight.

(T4) therefore suggests another simple derivation. By (P1) we know that words are not identical with their meanings. Hence a word either refers to knowledge that we already possess, and reveals no new sensible knowledge, or it refers to sensible objects which we have not experienced and which, by (T4), we cannot know.

A final derivation might be the following one: By (P1) we find that words acquire their connection with objects

arbitrarily. Hence by (T6) we shall not know that the sound of the word is associated with its object unless we have previously experienced this connection. And once again, we either already know the object of the word, or else we do not understand the word.

Two interesting principles dealing with the nature of questions may be derived from (P1) and (P2):

(P3) All questions which relate to the external universe must be directed to our senses.¹

Since language cannot reveal its objects, and since questions about the nature of objects nevertheless occur, such questions must be directed to the senses, the sole revealers of phenomena. Johnson observes cleverly:

This asking what is whiteness, what is thought, etc., proceeds on the supposition that whiteness, etc., is not itself, but something else. Now in all cases, whiteness or thought, etc., is itself. Words can refer us to the existence which we name whiteness, but words can effect no more.²

The next principle describes the conditions under which a question directed to the senses is intelligible:

(P4) A question which the senses cannot answer is insignificant.³

¹Ibid., p. 242 (Lec. XIX, par. 2).

²Ibid., p. 266 (Lec. XXII, par. 11).

³Ibid., p. 242 (Lec. XIX, par. 3).

If a question inquires after something that cannot be given by our senses then it refers to something that is not sensible, for example to nothing. But by (P1) expressions become words, and thereby sensibly meaningful, only if they are made the signs of some phenomena. Hence a question such as the above is sensibly meaningless. Johnson adduces a number of examples of meaningless questions such as the following:

What is the shape of a taste, or the color of a sound? The questions are insignificant. They inquire after no information of our senses. Every interrogation which possesses a similar defect, is equally trifling, provided the question relates to the external universe.¹

Thus language may pose questions, but its inquisition is limited in two ways: questions must be directed to the senses if sensible answers are demanded, and they must inquire only about things which are amenable to perception.

The next principle is a result of expanding (P2) by enumerating various forms of linguistic exposition. It is clear that whatever form language may take, whatever phraseology we choose, sensible knowledge, by (P2), cannot be achieved through language.

(P5) Explanations, descriptions, interpretations, and analysis of the universe provide no sensible knowledge.

A theory of nature is not possible if it is alleged to provide knowledge of the universe. Physics tells us that matter is constructed in certain ways, is governed by certain

¹Ibid., p. 242 (Lec. XIX, par. 2).

laws, and behaves in specific ways. But what physics informs us of is not sensible knowledge, unless physical statements refer to experimental evidence which can be perceived.

It is interesting in this connection how readily Johnson is willing to disparage his own writing because it does not provide sensible knowledge to his readers. After giving an analysis of the universe he says, for example:

Our analysis is artificial; the universe can be correctly expounded by itself alone.

You must remember that the object of my analysis is to subordinate language to nature. To effect this instruction I must possess some mode of referring to natural existences; but if you desire to know what the universe truly is, you must dismiss my names, as well as all others, and contemplate the universe externally with your senses, and internally with your consciousness.¹

The principles which I have so far discussed are certainly not the only ones which could be deduced from the artificiality of language, though they are certainly the most important. In the conclusion of the Treatise Johnson lists a number of principles which he considers most significant. Only (P2) and a weaker version of (P1) are included in his list.

Generality gives rise to many other principles. Of these I shall list the salient ones without commentary, because a thorough discussion of this topic has been given earlier.²

(P6) Language is primarily a system of general names.

¹Ibid., p. 161 (Lec. XI, par. 9).

²See pages 51ff above.

- (P7) General names frequently apply to complex particulars without specifying their constituents.
- (P8) The same word is often applied to phenomena which exhibit various degrees of similarity.
- (P9) Words sometimes name "objects" which have no real existence.

Let us now speculate about what Johnson might wish to do in respect to the limitations explicit in the above principles. Obviously, he wishes to make his principles, and thereby the limitations of language, known to his readers; he hopes to establish them with sufficient illustrations--of which, incidentally, he adduces an enormous quantity--and he surely wishes that his principles will be heeded. What I would like to investigate, however, is whether Johnson is prepared to go further than this. I come therefore to my third question: Is Johnson willing to abandon ordinary language, does he merely propose a reform, or does he wish to leave language as it is? The answer is not clear since there are passages in Johnson which would seem to support each one of these alternatives. These passages must now be examined in detail and possibly reconciled.

I have mentioned previously that since an ideal language is practically impossible, as Johnson realizes, there would therefore appear to be evidence that he wishes not to alter ordinary language but at best reform its usage, or the employment, interpretation and estimation which is given to it.

A revised estimation of language involves putting it into the proper perspective; and the proper perspective for language is a subordination to nature:

My lectures will endeavour to subordinate language to nature,--to make nature the expositor of words, instead of making words the expositors of nature.¹

A subordination of language to nature involves an appreciation for the difference between words and things, and an appreciation for (P1), (P2) and their implications. To this end Johnson appears to favor new ways of speaking:

Should a person point to an object, and ask me what it is, I might answer, it is a sight and a feel. My children are so accustomed to such answers from me, that they never address me as above. They ask me to tell them the name of the object. This question keeps the name distinct from the object, and gives language its proper subordination to created existences.³

Emphasizing the importance of perception and the need to subordinate words to phenomena in order to avoid an attempt to perceive in nature what words suggest that we should be able to perceive, Johnson says:

If you have succeeded in catching my analysis, you no longer see in the heavens, light, clouds, sun, galaxy, moon, stars, meteors, space, vacuity, distance, shape, etc., but you see various sights, to which the above words are names.⁴

¹Ibid., p. 40 (Lec. I, par. 14).

²Ibid., p. 56 (Lec. III, par. 3).

³Ibid., p. 54 (Lec. II, par. 22).

⁴Ibid., p. 54 (Lec. II, par. 23).

A different employment of language, which appears to accompany its subordination, is not only preferable in the every-day discourse of Johnson and his children, but is highly desirable in certain philosophical speculations. We saw earlier that Johnson devised an improvement of speculative discourse by the introduction of word indexing.¹ To avoid speculative errors, words which name complex particulars should be split and labelled. Thus the term orange will lead to no difficulties if we adopt a five-fold terminology: orange_S, orange_F, etc. The fact that Johnson is confident that errors in speculation can be avoided, which is clear in the following quotation, suggests that there are successful remedies such as the word indexing above. He tells us:

Verbal disquisitions will be erroneous till we cease from imputing to nature the identities which belong to language...this truth must be learned before we can extricate ourselves from the errors in which nearly all verbal disquisitions are involved.²

The point I wish to stress here is that even though language cannot be changed, that is, the limitations of language cannot be obviated, we can nevertheless extricate ourselves from the errors of linguistic discourse. A more specific vocabulary, for example, will help preclude errors which arise through our inattention to the generality of language, yet such a vocabulary will not affect generality

¹See page 60 above.

²Ibid., p. 86 (Loc. V, par. 19).

in the way an ideal language would. Besides, the difficulties with generality do not even arise in most ordinary discourse.

They occur primarily in speculation:

This versatility of language produces little embarrassment in the ordinary concerns of life, but in speculation it occasions controversy and confusion.¹

We apply a word to numerous cases which we deem homogenous or analogous. Practically, no evil arises, for we interpret the word by the sensible revelation to which it is applied,--decreeing Caesar at one moment a dog, and at another moment a Roman emperor. In speculation, however, we interpret the natural existence by its name.²

The answer to our present question therefore appears to be the following: Johnson does not want to abandon ordinary language, nor does he wish to leave it entirely as it is. A few restricted modifications of our employment of words, along with a recognition and appreciation of the principles, is probably sufficient to avoid most linguistic mistakes.

Some passages in the Treatise, however, appear not to support this interpretation of Johnson's intentions. We are told, for example:

That language will eventually receive the construction for which I contend, I feel no doubt, though I may not possess the talent to introduce the reformation.³

The passage suggests that Johnson is discontented with the ordinary construction of language and feels that it can,

¹Ibid., p. 113 (Lec. VII, introduction).

²Ibid., p. 276 (Lec. XXIV, par. 3).

³Ibid., p. 40 (Lec. I, par. 15).

and must be altered. Curiously enough the same passage is quoted by Drake as follows:

'That language will eventually receive the interpretation for which I contend, I cannot doubt; but that I possess the ability to make existing errors perceived even, I much question.'¹ (my italics)

Both of these statements are probably Johnson's since we are dealing here with two different works, but I shall accept Johnson's statement quoted by Drake as indicative of his intentions, and these are clearly consistent with my previous interpretation. The interpretation is not arbitrary, but it is based on the following consideration: in one of the lectures of the Treatise the principles which Johnson discusses throughout are referred to as "rules of interpretation."² Since the principles represent Johnson's major ideas, I think that it is fair to conclude that his interest is in the interpretation of ordinary language rather than in the construction of an alternative to it.

A number of passages in the Treatise seem to suggest that we ought to abandon language entirely. Thus, for example, in his conclusion Johnson declares:

Instead of contemplating creation through the medium of words, men should contemplate creation itself. They should estimate what their senses

¹Quoted in Stillman Drake, "A. B. Johnson and his Works on Language," op. cit., p. 238. An error has occurred in the citation of these passages for both Drake and Rynin place their respective quotations in Johnson's second book.

²Ibid., p. 162 (Lec. XI, par. 10).

disclose, and the phenomena which they experience internally...¹

We are told, also, that verbal processes "when pursued to their ultimate limits, lead to absurdities,"² and that "we are compelled to eventually abandon our verbal processes."³

Now I think that it is correct to say that Johnson advises us to ignore language after a certain point. The abandonment, as well as the subordination of language, must, however, be interpreted in the light of (P5). Because language cannot provide sensible knowledge it must be subordinated to nature at all times, and ultimately abandoned.

We may fabricate theories and definitions, but we cannot enlarge our knowledge of the external universe by an arrangement of words, any more than a conjurer can look into futurity by arranging the figures of a pack of cards.⁴

We cannot enlarge our sensible knowledge by words.⁵

Thus it is clear at what point language must be abandoned. It must be abandoned when it has served its function of reference; when it has guided us to sensible knowledge which only our senses reveal, it cannot do more. If nevertheless we expect it to do more, if we continue to

¹Ibid., p. 299 (Conclusion).

²Ibid., p. 206 (Lec. XV, par. 20).

³Ibid., p. 205 (Lec. XV, par. 16).

⁴Ibid., p. 245 (Lec. XIX, par. 4).

⁵Ibid., p. 172 (Lec. XII, par. 14).

employ it in a vain attempt to acquire sensible knowledge, then we are led to errors, absurdities and vacuous speculations,

Sensible and Verbal Knowledge

I have been speaking of what Johnson calls "sensible knowledge" all this time, and I have indicated some of the features of its relation to language. Johnson's conception of knowledge, however, is not entirely clear. We are told, for example, that language can provide verbal knowledge, and we wonder what sort of knowledge this is, what its connection with sensible knowledge is, and which of these types of knowledge, if any, Johnson favors. Thus I come to my third question: What is Johnson's conception of knowledge? Is this conception adequate?

At several points in Chapter I Johnson's conception of knowledge was introduced and some important aspects of it were briefly discussed. I indicated, for example, that the distinction between sensible and verbal entities can be extended to include types of meaning and types of knowledge. Sensible knowledge is roughly our knowledge of the universe, both external and internal, while everything else is verbal knowledge. I indicated somewhat later that the distinction between verbal and sensible knowledge is roughly equivalent to the well-known distinction between knowledge by description and knowledge by acquaintance.¹

¹See page 27 above.

It would be unfair to interpret Johnson's notion of sensible knowledge by saying that sensible knowledge, or knowledge of the universe, is identical with perception. Certainly the information which we acquire through perception constitutes one important part of sensible knowledge. Johnson tells us in a later work that our knowledge is "wholly derived from the senses,"¹ a view quite popular among his empiricist contemporaries. But a great deal of information derived from the senses is not immediately given to us by them. Indeed, sensations are the only items which are directly given through perception, and sensations alone surely do not constitute sensible knowledge. We learn much more through the senses: we learn, for example, that a certain feel is associated with a certain sight. But we do not find this through direct sensation. The association is learned through experience, and hence Johnson speaks of experience in formulating (T6), telling us that the prediction of associations among phenomena must be based upon some past experience. Similarly, many other relations among phenomena are not directly perceived, yet they are in some sense derived from our sense organs. I shall therefore regard sensible knowledge as consisting of all the information that is given in experience of which direct perception is only a small part. It is clear that this conception of sensible knowledge is identical with

¹Johnson, The Physiology of the Senses, op. cit., introduction.

what is frequently called "knowledge by acquaintance."

Verbal knowledge and knowledge by description are not identical. When I defined "verbal meaning" I remarked that words have verbal meaning in three different manners. A word is verbally meaningful if it refers to other words, if it refers to objects in the objective universe relative to some knower, or if it refers to non-sensible entities.¹ This triple distinction applies to verbal knowledge as well. Such knowledge may be either (1) knowledge of words; (2) knowledge of the entities which someone else is capable of describing to us; and (3), knowledge of non-sensible entities. Let us examine all three of these in detail.

What can be meant by knowledge of words in the present context? Clearly, lexicographical knowledge, etymological knowledge, knowledge of phonetics or the study of empirical linguistics is not meant. To know words must for Johnson mean either to know certain sounds or sights, that is, to know words as physical entities; or it must mean to know the meaning of those words. It is clear that if the former of these alternatives is intended, then a group of words designed to convey information will be meaningless. Even a person who does not understand the language will know words in that sense. But no person could claim to understand these sights or sounds, to recognize them as symbols of other objects; and hence no

¹See page 72 above.

person can regard these phenomena as meaningful; they are not words at all but merely expressions.

No writer ever intends to give verbal "knowledge" in the above sense. Indeed, it appears in Johnson that this situation arises inadvertently. When a writer intends some meaning which his words cannot possibly have, when he discourses of "objects" which no sense could ever apprehend, then his words frequently mean nothing at all because they refer to nothing, and therefore when this writer produces his words he is really producing a collection of sights. Note here that this kind of verbal knowledge is certainly not identical with knowledge by description. The latter is thought to be meaningful information; the former however consists of mere sights and sounds without any meaning. I doubt, finally, whether it deserves to be called knowledge at all, even when qualified as "verbal." Fortunately there are other and more significant types of verbal knowledge.

Words may mean the meaning of other words. This topic was discussed at length in Chapter I, and I shall therefore merely indicate the results of that discussion.¹ When words mean other words it is possible to gain a significant type of verbal knowledge provided that the words to which reference is made are themselves meaningful. That is, these words must

¹See pages 79ff above.

either refer directly to sensible phenomena, or indirectly to such phenomena by means of other words to which they refer directly. Thus a description of a centaur is verbally meaningful and hence provides verbal knowledge when the constituents of that description refer to phenomena which the reader has experienced.

The second type of verbal knowledge which I have distinguished is, like the one above, more obviously akin to knowledge by description. Each person's subjective universe contains objects which are capable of being described by him to someone else whose subjective universe does not contain them. An individual who hears or sees a description of some object which he has never experienced will obtain verbal knowledge in two senses: first in the above sense in which the words of the description are meaningful since they refer to phenomena which he has experienced, and secondly in the sense in which he knows of the existence of the object which is being described to him. He knows that the object exists and he knows this verbally. Though he has not experienced this object, he nevertheless is not entirely ignorant of it for he knows, furthermore, certain facts about it due to the information given by the description. If he does not understand this description, however, he can claim to have verbal knowledge only in the relatively trivial sense of knowing certain sounds or sights.

Thus I have actually distinguished three different sorts of verbal knowledge among these first two types. Verbal knowledge resulting from reference to words is an ambiguous notion, for it could either mean knowledge of sounds or sights, or knowledge of a meaningful description. Thus the knowledge gained through reference to words is distinguishable into a relatively inconsequential and a more significant type of verbal knowledge. Finally, the second type originally distinguished results from reference to objects which have not been experienced by the person who gains verbal knowledge from a description of them.

It is interesting here that in order for verbal knowledge to be significant it must be at least grounded in experience. A description of some unexperienced object is intelligible only if the phenomena referred to by its elements have been experienced. On the other hand, when verbal knowledge is insignificant as explained above, then it actually is sensible knowledge since sights and sounds are sensible phenomena even though they are only words. But it is clear that only the significant type of verbal knowledge is equivalent to what is called "knowledge by description."

That knowledge by description--which is what we may call this second type of verbal knowledge--must be sensibly grounded in order to be intelligible is recognized by Johnson:

A verbal description of any unknown sight, is sensibly intelligible to a man by means only of the sights he has seen, and the intelligibility is accurate to the extent only that his known sights approximate to the unknown. The more we enlarge our acquaintance with sights, the more we enlarge our capacity for proximately understanding verbal descriptions of sights which we have not seen. A child who has never seen a sailing vessel larger than a canoe, and water larger than a brook, and a fish larger than an eel, would derive but little accurate information from the description of a sea voyage in quest of whales.¹

Before considering some special difficulties raised by the above notion of verbal knowledge I would like to mention the third type, which is equally important and which has similar connections with sensible knowledge. One would think that knowledge of non-sensible entities certainly would not involve any sort of sensible knowledge. But the situation here is practically the same as with knowledge by description. In order for a string of words to be intelligible it must make reference somewhere to sensible phenomena, no matter whether an object of the objective universe or a non-sensible "object" is being described. It may make such reference directly, or indirectly through other words.

By knowledge of non-sensible entities several things may be meant. The theoretical knowledge of physics purports to deal with entities not amenable to perception. But according to Johnson "Every theory and theoretical agent are significant of the sensible information to which they refer."² "Universal

¹Ibid., p. 23.

²Johnson, Treatise, op. cit., p. 235 (Lec. XVIII, par. 19).

gravitation," for example, "signifies the particulars only to which it refers."¹ Certain experimental data, certain observations which are adduced as evidence for the existence of a hidden force or power, are actually all that can be meant by the word "gravity." The speculations of philosophers, in a similar manner, frequently constitute this third type of verbal knowledge. But again, in order to be intelligible, even such speculations must somewhere be grounded in sense experience. Finally, mathematics, logic and all other deductive sciences are also included in this third type. Yet even these seemingly pure verbal systems have, according to Johnson, a connection with experience. He explains the cogency of valid reasoning, or that of the laws of logic, in terms of sense experience. In speaking of the law of excluded middle Johnson remarks:

The necessity for our assent to such propositions is founded on our sensible experience: thus, I can show you a knife, and tell you that the knife is visible. I can remove the knife, and tell you it is invisible. But why cannot the knife be both visible and invisible at the same time? Try if you can effect such a coincidence, and you will discover why. The impossibility is what you will experience. It possesses no other meaning.²

And of deductive argumentation Johnson believes that "The ultimate cogency of all reasoning refers to our sensible experience."³

¹Ibid., p. 128 (Lec. VIII, par. 8).

²Ibid., p. 195 (Lec. IV, par. 2).

³Ibid., p. 218 (Lec. XVI, par. 17).

In general we may assert that verbal knowledge, if it is deserving of the appellation "knowledge" ought to have a basis in sense experience. For this reason it may be helpful to distinguish sensible knowledge from sensibly grounded knowledge and not to regard the knowledge of expressions as real knowledge at all. For even when words literally mean only other words, the words referred to must surely be intelligible before we can claim to possess verbal knowledge. Johnson speculates in one place:

What is conscience, hope, faith, courage? The natural meaning is what we can discover by our consciousness, while the verbal meaning is such a definition as approved authority shall have imposed...What is conscience? The moral sense. What is the moral sense? A. And what is A? B. What is B? The process admits of no end, for the last answer is as questionable as the first.¹

But a word such as "consciousness" surely does not mean the sounds of its definition. In order to know the meaning of this word we must be able to understand its definition. Johnson, however, does not make this point clear in his early work. Later we shall see that he expands and thereby completes his conception of knowledge by the addition of intellections, i.e., certain concepts to which such words as "consciousness" refer to, and which therefore are made legitimate objects of knowledge.² In the Treatise however,

¹Ibid., p. 269 (Lec. XXIII, par. 12).

²For a discussion of the notion of an intellection see Chapter III, pages 139ff below.

Johnson's conception of verbal knowledge is not sufficiently analysed, a discrepancy in his work which is possibly due to his curious predilection for sensible knowledge. Sensible knowledge is all important; verbal knowledge is merely the result of a failure to achieve the intended sensible knowledge. Thus the whole Treatise is an attempt to stress the significance of sensible knowledge, the importance of sensible meaning, the need to have sensible referents for all words, the conditions under which sensible knowledge can or cannot be obtained, etc. Verbal knowledge, on the other hand, appears to be neglected, and is nowhere mentioned in the conclusion of the Treatise. Indeed, verbal knowledge appears to be disparaged and rendered much inferior to, and less significant than, sensible knowledge.

Thus I come to my fifth question: Does Johnson prefer sensible knowledge and disparage the importance of verbal knowledge? At the very beginning of the Treatise the reader is told that "We are in danger of wasting time in verbal investigations."¹ The reason appears to be that

We mistake words for the ultimate objects of knowledge; while the revelations of nature are properly the ultimate objects.² (my italics)

Nature evolves before us her phenomena. These are important, whether we note them or not, or discuss them or not; and we are acted on and act in this evolution of realities without the slightest deference

¹Ibid., p. 30 (Loc. I, par. 3).

²Ibid., p. 293 (Loc. XXIX, heading).

to our speculations, though in our discussions we seem to suppose that the evolutions of nature are controlled by our verbal decisions.¹

Note here that we have the beginning of a misunderstanding about the kind of verbal knowledge which is said to result from a reference to words. Knowledge of expressions, on the one hand, is spurious; only the knowledge of significant descriptions can be regarded as real knowledge. Mere words are not the ultimate objects of knowledge, but neither are phenomena all of the time. Frequently verbal knowledge is based on sense experience, or finds its objects in concepts. This slight oversight causes Johnson to underestimate the importance of verbal knowledge throughout the Treatise. We find in another lecture, for example, that "The scholar [is] wasting in the contemplation of a few propositions," and we are requested to leave, with Johnson, such fields of speculative imagination and "return to the slow exploration of a single avenue of knowledge."² (my italics)

Why is verbal investigation a waste of time? Is not verbal knowledge, gained through verbal investigation, a rather important--if indeed not the important--branch of human learning? When Johnson speaks of a single avenue of knowledge, and of the revelations of our senses as constituting the only proper objects of knowledge he is speaking of sensible

¹Ibid., p. 298 (Lec. XXIX, par. 12).

²Ibid., p. 112 (Lec. VII, introduction).

knowledge. No one can question that sensible knowledge can be gained only through the senses. But it is questionable whether sensible knowledge is knowledge in the important sense.

Johnson compares the knowledge of Professor Brown in respect to the word "power" with the knowledge of a boy:

A boy who fires a squib to show you that a spark possesses power to ignite gunpowder, differs verbally only from Professor Brown, who insists that what the boy calls power in the spark, is only an invariable antecedence. All that is sensible is alike in both, and all that is not sensible is verbal only; and cannot be thought of even, except in words.¹

We cannot argue here with Johnson's contention that both the Professor and the boy possess the same sensible knowledge. But the example here makes rather clear the mistaken value judgement of Johnson when he supposes sensible knowledge important, and verbal knowledge insignificant. The verbal knowledge of the Professor differs a great deal indeed from that of the boy; it differs so much in fact that we are prone to call the Professor educated on the subject, and the boy quite ignorant. The Professor possesses the kind of knowledge which allows him to predict, produce and control power. Suppose that the Professor knows the laws which govern electric power, while both he and the boy know how a shock feels. To know the feel is not knowledge in any significant sense. The feel gives us the object to be known;

¹Ibid., p. 166 (Lec. XII, par. 2).

but it is not knowledge about the object. The boy knows nothing about the laws of electricity; hence he is rightly said to be ignorant of this subject. He is ignorant because, though he has sensible knowledge, he lacks the all important verbal information.

To emphasize again the importance of experience in human knowledge I would like to point out that the Professor's verbal knowledge of the laws of electricity, in order to be intelligible, must certainly be based on experimental data which can be perceived. His verbal knowledge must have a basis in sense experience. Nevertheless, without subtracting from the importance of experimental data, it is clear that the Professor's verbal knowledge of electric phenomena need not be based on any observations that he himself has made. He may take the word of the scientist who has performed the relevant experiments, that certain laws do indeed obtain, and his verbal knowledge is thereby not decreased. This conception, I think, is implicit in Johnson's theory, although Johnson has not recognized it in the Treatise. Thus, for instance, the reformulation that I made of (T4), to wit (T4a),¹ shows clearly that Johnson would accept the above interpretation of verbal knowledge. (T4a) tells us that any sight which seeing has not informed someone of, is unknown to me. The

¹See page 31 above.

theorem implies that if someone has seen some sight, in the present case some experiment dealing with electricity--then this sight can become known to a person who has not himself seen it, viz., through description; and further, that any other person may accept this sight as evidence for any verbal knowledge that he may have.

Perhaps Johnson anticipated some criticism of his neglect and apparent undervaluation of verbal knowledge for he occasionally remarks that he wishes not "to depreciate verbal learning."¹ Although in the following passage he again speaks of "wasting time" with verbal disquisitions, we recognize here that he does not thereby depreciate such disquisitions:

The verbal answer is a definition founded on some theory. I object not to it, and it may be useful; but I wish to discriminate between the verbal answer and the sensible, that men may not seem to disagree, where perhaps they merely misunderstand each other:--that they may not waste their efforts on verbal disquisitions, when they²wish to obtain knowledge of the external universe.

By "knowledge of the external universe" Johnson here means "sensible knowledge." Hence we would indeed waste our time with words if what we seek is information that can be given only by our senses. We shall see in Chapter III below that Johnson's appreciation of verbal learning becomes a great deal more explicit; and I shall there argue that the expansion

¹Ibid., p. 175 (Lec. XII, par. 19).

²Ibid., p. 269 (Lec. XXIII, par. 12).

of his conception of knowledge leads him to recognize the importance of verbal knowledge and, consequently, to the favorable estimation of language as a tool in its acquisition.

Such, however, is not the position of the Treatise. Language cannot provide sensible knowledge, and its capability to provide verbal knowledge is acknowledged though never discussed. I come therefore to my last question: What is the relation of language to knowledge? Is language capable of adding to our knowledge? Is communication of knowledge possible?

Language, Communication and the Power of Description

According to John Locke it is possible to define the names of complex phenomena, but not those of non-complex basic phenomena:

Simple ideas are only to be got by those impressions objects themselves make on our minds...For words being sounds, can produce in us no other simple idea than of those very sounds...he that thinks otherwise, let him try if any words can give him the taste of a pineapple... So far as he is told it has a resemblance with any tastes, whereof he has the ideas already in his memory ...so far may he approach that resemblance in his mind.¹

In respect to what Locke calls "simple ideas" both he and Johnson are in agreement that to know these it is imperative that we first have the relevant sense experiences, that words which are used to name them are only sounds which

¹John Locke, Essay Concerning Human Understanding, Book III, Chapter IV, par. 11.

cannot produce in us anything but the idea of their own sound, and that in so far as a perception is analogous to other perceptions which a person has experienced, he will have knowledge of that perception to that degree of analogy. Note that this last restriction does not make it in principle impossible to know a simple idea whose impression has never been experienced, by means of words alone. Locke, as I shall indicate presently, avails himself of this possibility when he considers our knowledge of complex ideas. Johnson however cannot allow this for by his (T₄) it is impossible to know what we have not experienced. We recognize the possibility of knowing complex ideas by means of words alone also in Locke's allowance for two ways of acquiring knowledge of simple ideas. Locke tells us that a simple idea may be known either by ostention, or by giving a synonym of its name:

So to make a countryman understand what "feuillemorte" colour signifies, it may suffice to tell him it is the colour of withered leaves falling in autumn. Secondly, but the only sure way of making known the signification of the name of any simple idea, is by presenting to his senses that subject which may produce it in his mind, and make him actually have the idea that word stands for.¹

Two seemingly contradictory contentions in these passages from Locke must be resolved: first we are told that it is in principle impossible to acquire knowledge of a simple idea through language alone, and now Locke tells us that such knowledge acquisition entails only practical difficulties.

¹Ibid., Book III, Chap. XI, par. 14.

But there is no contradiction here, for earlier Locke maintained merely that a sound cannot give us a taste or a sight; hence a word, being a sound, cannot give us knowledge of simple ideas. This is essentially the content of Johnson's analytic (T2). Locke, however, allows much more: though ostention is "the only sure way" to gain knowledge of simple ideas, it is not in principle impossible to call up the appropriate idea by means of synonyms. Hence we must distinguish two ways of gaining knowledge by means of language: (a) from the sound of the words alone; (b) from the analogy which the words may indicate. No one would disagree with Johnson that (a) is impossible, and that certain phenomena can be acquired only by their respective sense organs, in fact, to assert the impossibility is analytic. But there is room for disagreement as to whether the definition of the types of phenomena which led to the analytic (T2) is a comprehensive one; what is meant by "to be revealed by the senses," and finally, whether or not language by means of analogy with ideas already in the listener's mind is not capable after all of inducing new ideas in him.

The aforementioned difficulties in Johnson's theory are particularly conspicuous in his treatment of what Locke calls "complex ideas." According to Locke it is possible to define, and hence to know, the content of a complex idea:

The case is quite otherwise in complex ideas; which, consisting of several simple ones, it is in the power of words standing for the several ideas that make the composition, to imprint complex ideas in the mind, which were never there before, and so make their names be understood.¹

Locke is careful to add that complex ideas can only be known "provided that none of the terms of the definition stand for any such simple idea, which he to whom the explication is made has never yet had in his thought."² Given a person with knowledge of a set of simple ideas, we may induce in him these ideas, or various combinations of them, without the requirement that he has had experience of the actual sensible combinations. Locke gives the following example:

He that should use the word rainbow to one who knew all these colours, but yet had never seen that phenomenon, would, by enumerating the figure, largeness, position, and order of the colours, so well define that word, that it might be perfectly understood.³

Locke again carefully adds that this would not be possible for a blind man, for example, because "several of the simple ideas that make that complex one being such as he never received by sensation and experience, no words are able to excite them in his mind."⁴

¹Ibid., Book III, Chapt. IV, par. 11.

²Ibid., Book III, Chapt. IV, par. 14.

³Ibid., Book III, Chapt. IV, par. 13.

⁴Loc. cit.

Johnson, as expected, is in opposition to this view since according to (T1) a combination of sights is an entirely new sight, and hence a sight not seen. And a sight not seen is by (T3) unknown; and by (T2) cannot be known except through the senses. But as I indicated, there exists an ambiguity in saying that words reveal phenomena: thus if Johnson means to assert the impossibility of (a), we would judge him correct because his assertion is analytic; but if he means to assert the impossibility of (b), then there is reason to suppose him mistaken. Johnson confuses the two modes of acquiring sensible knowledge, and the resulting ambiguity allows him to criticize Locke's example:

When Locke says that the meaning of rainbow can be revealed to a person who never saw one, provided he has seen red, violet, green, etc., Locke is alluding to the verbal meaning of rainbow. This meaning can be known to the blind.¹

I doubt whether Locke alludes to the verbal meaning which can be known to the blind, namely, the relatively inconsequential knowledge of words as sounds. Surely a person who has seen the colors which occur in a rainbow knows somewhat more than a blind man who neither knows the sight rainbow nor the individual colors which occur in it.

The whole argument here is contingent on what is meant by a knowledge-state. To call that knowledge which Locke claims can be induced in a person by an arrangement of ideas which he

¹Johnson, Treatise, op. cit., p. 152 (Lec.X, par. 13).

already has, either verbal knowledge or sensible knowledge is perhaps misleading: the distinction seems to imply a strict dichotomy between either knowing a sight and having sensible knowledge, or not knowing a sight and therefore having only verbal knowledge of it, or no knowledge at all. But such a dichotomy leads to a great deal of difficulty. We saw earlier, for example, that verbal knowledge had to be split up into three different types and, moreover, that verbal knowledge, in order to deserve the appellation "knowledge" must have a specific relation to sensible knowledge. In order for words, which constitute our verbal knowledge, to be intelligible, they must either themselves refer to some sense experience which we have had, or they must refer to other words, perhaps to their definitions, which in turn refer to such sensible experience.

Locke's distinction between ideas and impressions suggests an entirely different view of the matter. Impressions are at best the causes of knowledge. They are the causes of ideas; and ideas as well as "their agreement or disagreement", as Locke puts it, constitute our knowledge. Impressions themselves are not knowledge. Only remembered impressions, or ideas, constitute knowledge. This theory of knowledge, in turn, suggests that there are degrees of knowledge ranging from the knowledge of a blind man to that of a person who saw a rainbow a moment ago. The knowledge of the blind man is indeed purely verbal. To him the name "rainbow" as well as the names of the

colors which constitute it, can refer to no ideas because he cannot have had the relevant sights. A man who has just seen a rainbow will, on the other hand, have a high degree of sensible knowledge in that the idea which is caused by the rainbow impression is still fresh in his mind. Between these two individuals there may exist a wide variety of knowledge states. There may be individuals, for example, who once saw a rainbow, but whose idea has meanwhile grown rather vague. There will also be individuals who have never seen anything but the colors that constitute a rainbow. Others, again, who have seen nothing but pictures of rainbows. Their knowledge may be called verbal if this appellation is insisted upon; but I think that it is pretty clear that verbal knowledge in their case differs a great deal from the verbal knowledge possessed by a blind man as well as from the sensible knowledge of a man who saw a rainbow once long ago, but whose mental image of this sight has meanwhile grown very dim.

Let us pursue Johnson's rainbow-argument somewhat further to determine how he counters the above contentions:

But admit that a person who has never seen a rainbow shall still have seen all its colours. Admit further, that when you enumerate the colours, he shall guess the precise red, orange, yellow, etc., to which you refer; yet, for the person to know how the colours will look when they are combined, will be impossible; much less, how they will appear when drawn into the shape, size, and position of a rainbow. If he has seen such a combination, he has seen a rainbow; but if he

has not seen the combination, language is inadequate to reveal it.¹

There are three parts to this argument: (1) According to (T1) a combination of sights is again a sight. (2) By (T4) a sight which we have not seen is unknown to us. (3) By (P2) language is not capable of revealing any sight. I observed earlier that (T1) is not necessarily analytic: there are no definitions in the Treatise which tell us what constitutes a new sight. Hence I think that (T1) is open to question unless it makes the following trivial assertion: any sight whatever is a new sight. Thus, for example, when we see a rainbow at time t_1 and when we look again in the direction of that first sight at time t_2 and see a rainbow a second time, then according to (T1), the rainbow sight at time t_2 is a new sight. Unless (T1) makes such an assertion, or is based on this supposition, I think that it is merely a statement concerning our powers of imagination: some individuals cannot imagine the result of combining two sights, but others can. Johnson, however, claims:

Brilliance of imagination, and acuteness of intellect, cannot pass the barriers erected by nature. The most practiced musician can, no more than the most unskilful, know the sound which will be produced by a new combination of familiar notes.²

But is there not a difference in novelty between a new combination of notes the constituents of which a musician has never heard, and a new combination of notes the constituents

¹Loc. cit.

²Ibid., p. 148 (Lec. X, par. 8).

of which he has heard? Is not the former new in the sense of never having been experienced, and the latter new in the sense of being a different combination of what has been experienced? It is clear that Johnson's (T4) applies in the former case. A new combination of notes in that sense, or a new combination of colors, is a "sight" or "sound" never experienced and hence unknown. But I do not believe that (T4) applies in the case where what has not been seen is merely a different arrangement of what has been seen.

A very interesting result, furthermore, is obtained when we attempt to incorporate the assertion of (T1) into Locke's distinction between ideas and impressions. Why should we not be able to say of ideas what is said of impressions? Why not say that a new combination of ideas is again an idea much as a new combination of impressions is again an impression? If this extension of (T1) is possible then I think it is rather obvious that we can know a rainbow when a verbal description causes us to rearrange our ideas of colors, etc.

And therefore Johnson's (P2) is in need of qualification as well. In certain special situations it is indeed possible to reveal "new" sights by means of language alone in the manner correctly described by John Locke. In this way the importance of language as a tool in the acquisition of knowledge may be preserved and communication of knowledge from one individual to another via language made possible.

Curiously enough, this is precisely what Johnson, in spite of his initial efforts in the Treatise, ends up contending. The contention, moreover, is by no means precluded by the theory of the early period in Johnson's philosophical development. Various theorems can be reinterpreted; a scrutiny of verbal knowledge reveals the possibility of expanding this concept especially since it is clear that in order for verbal knowledge to be intelligible it must have definite connections with sense experience; and Johnson's own suspicion that verbal knowledge is significant, as indicated in his occasional concern not to be thought of as depreciating the latter, evinces a discontent with the precocious theory of the Treatise. A partial revision and supplementation of the latter in Johnson's later work comes therefore as no surprise. Let us then turn to the developments in Johnson's The Meaning of Words.

CHAPTER III

MENTAL ORGANIZATION, INTELLECTIONS AND THE SIGNIFICANCE OF VERBAL KNOWLEDGE

More than twenty years after the publication of his first treatise on language, The Principles of Human Knowledge, A. B. Johnson, undaunted by his disappointment over the unfavorable reception of his early theories, produced a third book¹ in which he reconsidered the subject, partially in the light of adverse criticisms from theological quarters. The early books, though they left room for development and anticipated much that is to be found in later writings, had elaborated an extraordinarily narrow conception of knowledge, a depreciation of the significance of language and the consequent futility of ordinary communication about the world, and above all, what must have appeared to Johnson's antagonists as an irreligiously severe restriction of the meaning of words. Theological discourse, for example, had only verbal meaning; and verbal meaning, especially when prefixed with the derisive terms "only," or "merely," was erroneously interpreted as indicative of

¹The present discussion is almost entirely devoted to Johnson's semantics as presented in The Meaning of Words: Analysed Into Words and Unverbal Things, And Unverbal Things Classified Into Intellections, Sensations, and Emotions, (New York: D. Appleton & Co., 1862).

No modern edition of this work is available. Thus its contributions tend to be overlooked, especially since the original edition is difficult to obtain. But the doctrines contained in it are sufficiently divergent from Johnson's earlier work that it is imperative to include it in any comprehensive evaluation of Johnson's views on language.

meaninglessness. This, however, was a misunderstanding, and Johnson was solicitous to rectify it not only in the third book, but in writings specifically devoted to theological disquisition.¹

The third work, according to David Rynin, is "a restatement in different form of some of the central ideas of [Johnson's] earlier books, with one significant change."² The significant change to which Rynin alludes is Johnson's notion of an intellection. Though this notion is new it should not be regarded as an alteration but rather as an extension of the earlier semantics. Moreover, it is not the only extension discoverable: the third work is much more than a restatement of old ideas, albeit in different form. It is an attempt to present language as propitious to human affairs--a fact never explicitly denied, yet hardly ever acknowledged in the Treatise. Language, in The Meaning of Words, is granted the significance suspected earlier, and is absolved from the errors in knowledge claims originally attributed to its alleged defects. My discussion of language defects³ indicated that language could not properly be said to have defects at all, but at best to contain certain irremediable limitations. This view is indeed

¹Johnson, Religion in Its Relation to the Present Life, (New York: Harper & Bros., 1841).

²David Rynin, "Introduction," op. cit., (1947), p. 9.

³See Chapter II, page 87 above.

the one accepted by Johnson who carries it much further as I shall show presently. Johnson discovers that the limitations of language are caused by human mental organization in which the conditions for the construction of any language inhere.

Intellections, finally, provide an extension of sensible meaning such that words which at one time were only verbally meaningful can now be said to have sensible meaning as well. Accordingly, verbal knowledge has some of the significance which was once enjoyed only by sensible knowledge. The phenomenological nominalism of the earlier theory is modified considerably, and the ontological investigation of the universe is augmented by an investigation of human mental organization. The human mind is categorized in a manner reminiscent of Immanuel Kant's, and its organization is found to be responsible for what we can know, how we know, and for the errors we commit when we conceive the nature of the universe. To an elaboration of these points I shall turn presently.

Of interest also is the change in attitude with which Johnson presents his material in The Meaning of Words. The tenets of the Treatise were introduced somewhat dogmatically, and they were generally accompanied by the suggestion to go and see for yourself and discover that experience substantiates all claims there made. This "go-and-see-for-yourself" attitude is entirely relinquished, and instead we find the frequent

admission that, though intuitively compelling, the theories are after all only theories, based on assumptions somewhat confirmed by experience, yet by no means irrefragible.

Johnson remarks that a work on language titled Prodromus was published in London by Sir Graves Chamney Haughton some-time after Johnson's first two works were produced, and it treated of language in a manner similar to those works:

Like my above named two publications, it deemed intellectually conceived words as nothing but words, and deemed the ultimate significations of all words to be only sensible perceptions and internal feelings. I suppose such a limitation precedes the fuller conception of language contained in the present publication; our¹ knowledge being naturally cumulative and progressive.¹

The publication on the same subject by a different author is perhaps one motivation which compelled Johnson to pursue his investigations of language and to develop his earlier semantics into a "fuller conception." But the motive by far more compelling was probably Johnson's desire to appease his critics. He observes slyly:

I, at one period, supposed /that conceptions/ possess no ulterior meaning, and that all abstract speculations are mere words...I should probably have continued in this short-sighted belief, had I not found that a vast amount of human learning, including all natural theology, is involved in the issue; and perhaps all revealed theology.

And he continues:

Indeed, all the fundamental tenets of theology, with an afterlife retribution of bliss or woe, have been conceived ...by all men in all ages; so that to doubt whether such conceptions belong to the human intellect is as irrational, as to doubt whether walking, seeing, tasting, feeling, hope,

¹Johnson, The Meaning of Words, etc., op. cit., p. 8

fear and hunger, belong to our sensible and moral nature.¹

Thus through Johnson's own conviction that his early work on language remains incomplete--a conviction which is probably less due to his concern with theology than to his continued investigation of the language habits of men, especially the tendency of deaf mutes to possess verbal conceptions without possessing words; and by means of the ad populum justification of theology that propositions which originally were thought to have only emotive meaning have sensible meaning as well because "all men in all ages" tend to conceive them in a sensible manner, the need for a re-appraisal of verbal knowledge, and hence of language, the vehicle of all knowledge, is established. This re-appraisal, presented in Johnson's The Meaning of Words, must now be examined in detail.

Much of what Johnson says in the Treatise concerning the classification of the universe, words, and the relation between words and objects, is reiterated in this later work. I shall therefore mention this material briefly in order to indicate differences in doctrine as well as terminology, and I shall dwell primarily on the important developments mentioned above.

To begin with, Johnson again distinguishes between signs and objects signified, but he adopts a new terminology: the

¹Ibid., p. 200.

signs of objects, or words, are verbal entities; objects signified are unverbal entities. Words function as signs of objects; and the objects signified by any word constitute the meaning of that word. Meanings are therefore divisible into verbal and unverbal types as well: when a word signifies other words, or phenomena of the objective universe, or non-sensible objects, the meaning of that word is verbal. But when either external phenomena, internal phenomena or the new class of entities which Johnson calls "intellections," are signified, the meaning of the word which signifies them is unverbal.

The classification of objects as "unverbal" is much broader than the analogous classification in the Treatise. Originally what was not verbal was said to be sensible. In the present theory, however, the class of sensible objects is only a sub-class of the class of unverbal objects. Unverbal objects are divisible into three types: sensible, moral and intellectual.¹ To each of these types corresponds a "perceiving organism" in virtue of which different types of unverbal objects are discriminable. Sensible objects are apprehended by the five senses; moral objects by the internal consciousness; and intellectual objects by the intellect. Of these classes Johnson tells us:

I mean not to characterize any one of the three classes as more or less important than any other, my

¹Ibid., p. 20. The terms "moral," "emotional" and "internal" are used synonymously to characterize our feelings.

design extending no further than to so analyze our knowledge that we may discriminate words from unverbal things; and the unverbal things of one of the three classes from any other...¹

Such discrimination is particularly important because the various organisms are specifically different from each other, and each of them yields objects which are generically different:

I postulate that our sensible organs, our intellectual organism, and our internal feelings, yield respectively knowledge that is different, each of the three sets yielding knowledge that is sui generis.²

I assume, however, much more, namely, that the unverbal things of each class are essentially different and are inconvertible into each other; and I am anxious that these tenets shall be perceived clearly; because, if I am incorrect in them, my entire classific superstructure is fallacious and worthless.³

The theorems governing various classes of objects, enumerated and explained earlier, continue to apply in Johnson's expanded theory. It should be clear, moreover, that no matter how many perceiving organisms or how many classes of perceivable objects are distinguished, Johnson's epistemology will remain unaffected. It might be said, for example, that the sense of touch is actually a complex of various senses, e.g., sense of pressure, sense of temperature, sense of pain, etc., and that the term "feel" actually covers

¹Ibid., p. 28.

²Ibid., p. 30.

³Loc. cit.

a variety of types which, if such accuracy were necessary, could be distinguished from each other. Nevertheless, any of the theorems will again apply when such distinctions are made. Thus (T2) will correctly state that the sense of pressure and only the sense of pressure can apprehend pressures and nothing but pressures. And (T1) would correctly state that two pressures felt simultaneously will constitute a third pressure. Similarly, all previously stated theorems ought to be true when applied to intellections and their preceiving organism, the intellect. It should be true, for instance, that only the intellect perceives intellections, and nothing but intellections.¹

Before attempting to identify the nature of intellections it might be helpful first to determine what intellections are not. Intellections are perceivable objects; but they cannot be words since they were said to be un verbal, nor can they be either sensible phenomena or internal feelings because they were distinguished from the latter and, moreover, are apprehended by a totally different organism. The intellect cannot perform the function of either of the five senses or of the internal consciousness because it is specifically different from these. It would be natural to suppose that intellections are thoughts because the intellect is a

¹Since intellections are probably private phenomena accessible only to the individual who apprehends them, it is more accurate to say here that intellections are governed by the revised theorems (Cf: p. 45 above) which govern feelings.

thinking organism through which we obtain ideas and which has the facilities to maintain, aggregate and collect ideas. But intellections cannot be thoughts because as we saw earlier¹ thoughts are either sights, feels, tastes, etc., or words. But intellections, according to the distinction, are neither words nor sensible phenomena. Thus either intellections are not thoughts, or thoughts are different from other types of phenomena, that is, a visual thought is different from a sight, a verbal thought is different from words, etc.

Finally, it is probable that Johnson's notion of an intellection corresponds to what Locke had in mind when he spoke of "ideas." This however, must remain mere conjecture since Johnson nowhere adequately analyzes the notion of an idea, nor makes the distinction between ideas and impressions.

What then is an intellection? Johnson provides a rule to help discover when a word names such an entity:

A third class of unverbally things I shall designate as intellectual. Every known thing is intellectual that is not comprehended by one of the above classes /viz., sensations and internal feelings/. By this comprehensive rule, we never need suffer any hesitation as to whether any word names an intellection or not. If the meaning of the word is not something that can be perceived unverbally by some one or more of our senses, the unverbally meaning is intellectual, unless it be emotional.²

¹See page 47 above.

²Ibid., p. 21.

This rule, however, is far too comprehensive, for though it allows us to discriminate between intellections and other unverbal objects, it fails to indicate how we are to distinguish between intellections and words. Consider, for instance, the following illustration in which Johnson applies his rule:

Take, for instance, the word physical, if I employ it without any reference to some thing that some one of my sense can perceive unverbally--the only meaning of the word is intellectual.¹

In the Treatise such a word would have been said to have verbal meaning if it did not refer to anything that our senses could discover. Now, however, its meaning is said to be intellectual, that is, that there does after all exist some unverbal object which is named by the word "physical," even though nothing unverbal exists that can be apprehended either by our senses or by our internal consciousness. Thus it appears that words for which Johnson found no unverbal meaning in the Treatise are now capable of having such meaning. Consider another instance:

...the intellect, however, can and will continue the division verbally, and finds that matter is divisible ad infinitum; and so certain is the divisional process that it is capable of mathematical demonstration. Now I insist, that when the division ceases from being sensible, it becomes only intellectual. The two 'divisions' are verbally homogeneous, but they are unverbally different; one being a sensible perception and the other an intellectual conception.²

¹Loc. cit.

²Ibid., p. 31.

In the Treatise, however, we are told that

We may employ the proposition of Mr. Reid to prove that an atom is divisible in infinitum, since every division still leaves a body which is composed of parts; but our language loses its significancy in the process, and the parts which we are dividing become sounds signifying nothing.¹

Of course the sounds did signify something even then, namely other words, and hence in the Treatise the word "divisible" at this point would have been judged verbally meaningful. Now, however, the word signifies an intellection, in fact, an intellectual conception, and it is thereby not verbally but unverbally meaningful. The account of the Treatise continues to be correct insofar as the word "divisible" has no sensible meaning; but it is no longer correct in attributing verbal meaning to it. Sensible meaning is a sub-class of unverbal meaning, and all classes of unverbal meanings were said by Johnson to be of equal importance. Hence when the word "divisible" is said to have unverbal meaning, it acquires a significance which it did not previously enjoy. Though it does not have sensible meaning, its meaning is at least part of a class of meanings to which sensible meaning belongs, but to which verbal meanings do not belong. A word which has unverbal meaning has thus the status, the significance and the importance that was attributed in the Treatise primarily, if not exclusively, to words which had sensible meaning. But

¹Johnson, Treatise, op. cit., p. 217 (Lec. XVI, par. 14).

the salient difference between the earlier and the later theories is the difference in the terms "unverbal" and "sensible." The former includes the latter, but it includes much more. It includes intellectual meanings which by definition are objects perceivable through the intellect alone. The next problem, then, is to determine what these intellectual objects are.

In the course of The Meaning of Words three types of intellectual "objects" are discriminable:

- (1) Some intellections are no different than Johnson's notion of a thought.
- (2) Most intellections consist of certain intellectual tendencies which are analogous, perhaps, to emotional tendencies.
- (3) The third type of intellection is not different from Locke's notion of an idea. I shall call this type of intellection a "concept."

(1) One of the clearest examples of an intellection occurs in the following passage:

When Hamlet says, he sees his father 'in his mind's eye,' his words refer to an intellectual conception that is entirely distinct from the words which he utters. We can see the moon, also, unverbally, in our mind's eye, and the moon thus seen intellectually is easily discriminable from the word moon, or from the sensibly perceived moon.¹

Later, when Johnson remarks that Hamlet's mental vision causes him to "instinctively stare," the subject matter of which he happens to be speaking is the nature of thoughts. Thus it does indeed appear that thoughts, of which there are

¹Ibid., p. 22.

six classes (viz., verbal thoughts, sights, feels, tastes, sounds, and smells) constitute one type of intellection. It is also clear which of the alternatives mentioned previously Johnson must embrace: in order to continue distinguishing intellections from perceptions it becomes necessary to distinguish thoughts from perceptions. Thus a visual thought is different from the corresponding sight; as Johnson indicates above, the visual thought of the moon, for instance, is discriminable from the perceived moon.

(2) The second type of intellection presents the most difficulty. Johnson tells us that

...all intellections are not, so easily as [the first type] discriminable from words; for instance, the conception that the sun 'required a creator before it could exist.'¹

When we speak of the creator of ships, Johnson continues, our words refer to sensible experience. But when we predicate a creator of the sun it is clearly impossible that our words refer to a sensible experience which is analogous to the above. What then is the significance of these words as applied to the sun? In the Treatise Johnson would have judged these words as having verbal meaning only, and according to my earlier analysis of verbal meaning, such words would have been attributed the type of verbal meaning that results when a word refers to

¹Loc. cit.

non-sensible entities. Johnson, however, prefers a new interpretation of such words. He explains that

At one period of my life, I believed that words thus conceived by the intellect, of the sun, are totally insignificant unverbally, except as they refer to our sensible experience with ships and other analogous creations of man.¹

After the writing of the Treatise, however, Johnson continued his investigation of language and the language habits of men. He discovered that deaf mutes exhibit a knowledge of intellectual conceptions such as the "creator of the sun," without possessing a language. Thus their conceptions, according to Johnson, could not possibly be verbal:

I found, however, that a deaf mute manifests, by his conduct, a knowledge of some intellectual conceptions that are as seemingly verbal only as the conception of a creator in relation to the sun; for instance, he will prefer the whole of any desirable thing rather than a part, though he cannot know verbally 'that the whole is greater than a part.'²

Johnson's "discovery" here exhibits a good deal of verbal knowledge since, by his own admission, he has "never been in a position to observe mutes," and he is therefore speaking "from only conjecture."³ From this conjecture, together with the ad populum premise "that men in all ages of the world, and in all places, have, without any possible conventionality, conceived intellectually that the sun required a creator,"⁴

¹Ibid., p. 23.

²Loc. cit.

³Ibid., p. 25.

⁴Ibid., p. 23.

Johnson draws the conclusion that there must exist something other than mere words which are the objects of intellectual knowledge and which are the meanings of words such as "the creator of the sun."

Why does Johnson need such an argument to establish the existence of one type of intellectual object? No such argument was necessary to establish that thoughts are a type of intellection because even in the Treatise provision was made for such a possibility when Johnson introduced the notion of a thought. It is clear, however, that words such as "infinite divisibility," "creator of the sun," "unity," "gravity," "magnetism," etc., do not signify thoughts such as Johnson describes. The entities which these words name, if they name anything at all, must be different from visual thoughts, verbal thoughts, etc. We do not see gravity in our mind's eye, nor do we hear it in our mind's ear, etc. Again, infinite divisibility does not bear the same relation to sensible divisibility that the thought of the moon bears to the perception of the moon. Yet something other than words, in spite of the dogma of the Treatise, must be meant by words such as the above. That is, these words must have an unverbal meaning. Why must they have such a meaning? Is it because the theologian says they must; and because the physicist and other speculative writers are dissatisfied with the analysis expounded in the Treatise? Though these critics may have

influenced Johnson, I think that Johnson's own dissatisfaction with the results of the Treatise in respect to verbal meaning and verbal knowledge is the primary factor here. It is my contention that Johnson developed an understanding and appreciation of what he originally called "verbal knowledge" such that it became necessary to reinstate verbal knowledge, and thereby language, in a position of prominence alongside the all important sensible knowledge. This, however, was difficult, especially since the Treatise had dogmatically ruled out the existence of anything but words, internal and external phenomena. A provision had been made for a borderline object called "thought," but for the sake of consistency these special objects were identified with external phenomena. It was easy to develop the notion of a thought into one type of intellection. But this type alone did not solve the problem entirely because many words named no objects that were obviously thoughts. Thus it became necessary to introduce yet another class of intellections by a tour de force, in fact, by the spurious argument involving deaf mutes and the tendencies of men in general. The fact that this argument is invalid need not detract from Johnson's analysis of intellections. Indeed, the argument is immaterial for it would not have been necessary had Johnson developed his notion of a "thought" so that it covered ideas in Locke's sense, as well as perceptions.

In an attempt to determine the exact nature of this second class of intellections Johnson is impeded by the value judgement implicit in the terminology "verbal" and "sensible." Though he has come to recognize that what was once called verbal knowledge is of great significance, he does not recognize that he is interpreting nature by language when he concludes that what was called verbal knowledge was not correctly so classified. But such knowledge is not sensible knowledge either. To cope with the difficulty Johnson proceeds in the following manner. He introduces the term "unverbal" to include both the important sensible knowledge and also that type of knowledge which is neither verbal nor sensible. Secondly, he attempts to locate the objects of intellectual knowledge in the tendencies of the intellect, thus providing a sensible basis for them, or at least, a basis very much analogous to that of words which name internal feelings. Our emotional organism has certain tendencies, and these underly the meaning of words which name internal feelings. Thus Johnson explains:

All intellectually conceived words, whether relating to sacred subjects or profane, must alike find their ultimate unverbal meaning in the organism of the intellect.¹

'The kingdom of God' are words, but the words are also signs of an unverbal impulse or tendency in the organism of our intellect; as, therefore, the internal organic feeling which prompts an imprecation, is the unverbal meaning of the imprecation; so the organism of the intellect that conceives any given words is the unverbal meaning of the verbal conception.²

¹Ibid., p. 206.

²Ibid., p. 202.

What is of importance is to

discriminate intellectually conceived words from the organic unverbal impulse from which the conceived words proceed; and to show that intellectually conceived words possess an unverbal meaning in the organism of the intellect.¹

There is something odd about this explanation. For one thing the relation of meaning involves three things apart from person: it involves words which name intellections, intellections and organic tendencies of the intellect which have given meaning to intellections. Thus intellections are said to have a meaning. But originally only words were entities capable of having meanings; hence, intellections which have a meaning must themselves be words. Johnson supports this view when he says:

Intellectual conceptions are discriminable with more difficulty from words, because a large number of them consist of words; but an unverbal meaning underlies and is the ultimate signification of the conceived words.²

(3) The third type of intellection I shall call a "concept." I shall distinguish concepts from the second type of intellections in the following manner: when a word names no object that is discoverable by either our internal consciousness or by our external sense organs, the word means an intellection of the second type, viz., an organic tendency, unless its meaning is verbal. If, on the other hand, a word names a

¹Ibid., p. 25.

²Ibid., p. 27.

group of words which are themselves meaningful since they are based on organic tendencies, I shall call that group of words, or rather, what that group of words expresses, a "concept."

The term "verbal" was occasionally used by Johnson to evaluate our knowledge: what was called "verbal knowledge" was not real or proper knowledge, unlike sensible knowledge as he conceived it. The consequence of this was that much and perhaps most of our knowledge was undervalued, at least by those who refused to equate "verbal" with intellectual meanings, and read the former as a dyslogistic epithet. This consequence, however, was as odious to Johnson as it is to anyone who recognizes that verbal knowledge is primarily what our knowledge consists of. Johnson, therefore, felt it necessary to vindicate the significance of such knowledge; but the only way he thought he could achieve this, having committed himself to the terminology "verbal" and "sensible," was to find some sort of unverbal knowledge at the basis of what formerly passed as verbal knowledge. Thus he not only postulated thoughts as intellections, but conceptions as unverbal entities. Yet conceptions are words only, no matter how hard we attempt to find their meanings in cryptic unverbal intellectual impulses. We possess much important verbal knowledge, but we must, if we are committed to the above terminology, show that it has an unverbal basis in order to

secure its importance. This is, in effect, what Johnson has attempted with the introduction of the second and third class of intellections. Thus he writes in defence of his expanded theory:

If this doctrine be not true, we convert into mere words all knowledge that is not sensible or emotional; that is, all knowledge that can be manifested in words only.¹

Such a consequence did not upset Johnson at one time when he was perfectly willing to relegate much knowledge to the domain of mere words. But, as he recognizes, our knowledge "is naturally cumulative and progressive," and thus our theories must be expanded to account for additional facts. After Johnson realized that knowledge had to be re-appraised, it became necessary to take another look at language as well.

Perhaps Johnson's major discovery in respect to language is the fact that something more basic than language must be investigated in order to explain the limitations of linguistic discourse and the errors which result when linguistic principles are ignored. Consider, for example, the problem of ascribing unities to physical objects indiscriminately. Johnson's theory in respect to units has undergone some modification for he now holds that:

...the name of every physical thing implies a oneness which is only intellectual; and that when we mistake the nominal oneness for a sensible or physical oneness, we are deluding ourselves with an indiscrimination as bewildering as it is fallacious. These

¹Loc. cit.

remarks are applicable to all names of physical things, from the universe, which is the most comprehensive of nominal units, to a shadow, that is as much a unit physically as it is intellectually and nominally.¹

Everything is a unit nominally insofar as there exists a single word which names it. A few objects are sensible units, e.g., a shadow, light, an echo. All other objects, whether collections of experimental data such as that relating to gravity, or aggregations of basic particulars, whether intra-sensual or inter-sensual, are now all to be regarded as intellectual units. Thus,

...what the unit matter itself is, remains, like man's oneness, among the unsolvable mysteries of life. Why? Because, in neither case can our senses discover any such unit. Of course they cannot, for it is not sensible, but only conceived.²

Again,

A city, for instance, composed of a hundred inhabitants, and ten thousand houses, is as much a nominal unit as a shadow; but if we seek the city, deeming it some sensible unit that conforms in oneness to the city's oneness which is intellectual, we may deem the ill success of our fallacious sensible search a great mystery.³

Finally, a globe which is an inter-sensual complex particular consisting of a sight and a feel, or an orange which is an inter-sensual complex particular having four

¹Ibid., p. 82.

²Ibid., p. 80.

³Ibid., p. 79.

sensible constituents, have no sensible unity: their unity is again only intellectual.

Johnson's determination to find the unity of complexities in intellections is consistent with his earlier theory. The unity of complex particulars, such as an orange, was earlier acknowledged but left unspecified.¹ We said that a complex particular was one thing in the sense of being one bundle of different phenomena, distinct from other such bundles. But we did not specify how such a distinction between bundles was to be made. We now say, with Johnson, that the oneness is intellectual and that the discrimination is performed by the intellect.

The sensible unity of abstract objects such as gravity, (or "matter" in the above quotation), was denied in the Treatise. Such "objects" were actually nothing but collections of experimental data, and any unity ascribed to them was said to be verbal only.² But that gravity as a unit was verbal did not imply that such a unit is non-existent, but only that it is non-sensible. In the present theory units such as gravity are said to be intellectual and thus they gain in importance since they are now at least unverbally though indeed not sensible. In defence of this decision Johnson writes:

If the oneness of the two globes /the feel and the sight/ is simply a contrivance of language, as I had

¹See page 42 above.

²See page 52 above.

supposed of the orange, all languages would not concur, as they do, in calling the sight globe and the feel globe one thing.

And furthermore,

...if the oneness were only verbal, as I had first supposed it was, an uneducated deaf mute would not deem as one thing, the sight globe and the feel globe; but his intellect conceives the two to be a unit, as completely, no doubt, as ours.

Hence Johnson concludes:

The organic tendency of the intellect to thus aggregate sensible multiplicity into intellectual units is, as I ultimately discovered, one of the essential foundations of language...¹

When Johnson discusses the identity problem he again discovers that something more basic than language is responsible for errors which we commit in speculations and everyday discourse. He questions how we come to apply the same name to diverse objects, and he judges that "A reason for the designation must have preceded the designation,"² because in all languages names are applied to many unverbally different objects. Hence their use cannot be purely conventional, purely arbitrary, as he at one time supposed. Usage is governed by the tendencies of our intellect: "We apply a word whenever our intellect discovers that the name is appropriate."³ This tendency of the intellect, moreover, is of great benefit, whereas the same tendency when earlier

¹Op. cit.

²Ibid., p. 109.

³Ibid., p. 138.

ascribed to language was found to be a grave defect:

One of the most beneficial powers of the intellect is the countless multitude of unverbal things that it organically assimilates, thus enabling us to designate all of them by a single word...and perhaps man's capacity in this particular, is one of the chief particulars in which he is intellectually superior to other beings.¹

Thus to the conclusions concerning the defects of language that were reached in my second chapter, namely that language has no defects but only inescapable limitations, and that for this reason it is not they but only our own unawareness of them that is a misfortune, it should now be added that such limitations are not directly caused by the construction of language, but merely come to light when we employ language. In other words, the limitations of language are intrinsic limitations in our mental organization which causes us to employ language in specific ways. Finally, the limitations are "attended with compensatory benefits."² "Indiscrimination," for instance, "is not an unmitigated evil; indeed we can find that it is attended with utilities which more than compensate for its evils."³ "Without this organic intellectual identification of unverbal similarities or analogies," for example, "we could possess no such general words as wisdom."⁴

¹Ibid., p. 139.

²Ibid., p. 147.

³Ibid., p. 69.

⁴Ibid., p. 117.

And without general words, identification and analogy, we could not organize our knowledge of the universe, and we could not communicate it. When objects were brought to Adam so that he might name them, he was favored by an intellectual organization which helped him group things under the same name, "his intellect deeming identical innumerable things, notwithstanding their sensible diversities." And Johnson exclaims:

We cannot, however, admire too much the exceeding simplicity and efficiency of the organic intellectual contrivance, by which the innumerable host of unverbally things were thus comprehensible by a number of words not too large for our memory; and men were enabled to talk understandingly to their fellow men, though the interlocutors may never have seen the same horses, the same lions, the same trees, etc. We honour men too much when we deem language a human contrivance...¹

A number of objects, namely intellectual conceptions, could not be brought to Adam in any convenient manner so that he might name them. Here, another contrivance of his intellect solved the problem:

...the intellect was organized to conceive its notions in words that possess a sensible signification, and to recognize in the conceived words the intellectual notion to which the words refer.²

When we form words to name intellectual entities we find that such words "proceed from attempts of the intellect to assimilate conceptions to physical operations."³ We note

¹Ibid., p. 148.

²Ibid., p. 149.

³Ibid., p. 59.

that electricity "moves" or "flows" from one end of a wire to the other. We employ the word "flow" because we perceive an analogy between the movement of electricity through a wire and the movement of water through a pipe. Again, when naming the process by which the living pass into a state of "inert matter that will speedily decompose and corrupt--the intellect will assimilate the change to some sensible processes that the intellect conceives to be analogous." Thus we describe death in such terms as: "the vital spark is fled," "the soul is departed from the body," "God has withdrawn His sustaining hand," etc.¹

Analogies are a benefit which we derive from the tendencies of our intellect; but if the analogy is taken for more than an analogy, we become involved in spurious speculations. To suppose that electricity actually flows in the manner in which water flows through a pipe, and to postulate entities which electricity must therefore contain in order to flow, in short, to deduce from the analogy fantastic conclusions about the nature of electricity, is to misuse language, and to fail to gain its intellectual advantages.

¹Ibid., p. 60.

CONCLUSION

The empirical epistemology explained and systematized in Chapter I is relatively simple, but consistent and sufficient to yield the major tenets which underlie Johnson's intellectual revolution. These tenets are the following:

(1) Language as a tool in the pursuit of knowledge is ineffectual. (2) Knowledge gained through words, or verbal knowledge, is chimerical and worthless. (3) The only proper kind of knowledge is that which is based on sense experience, or sensible knowledge. (4) The correct avenue to real knowledge is through the senses. Thus Johnson's revolution consists in a reversal of present methods of appraising reality and of employing language: sensible knowledge, not verbal knowledge, is to be cultivated as real knowledge of the universe; not language, but our senses are to support us in our quest for real learning.

The intellectual revolution is of great value especially in that it provides for the extinction of unlimited speculation as well as the resolution of many long-standing philosophical disputes. But this is not its only effect. The depreciation of verbal knowledge and language which Johnson's early tenets imply, involves the rejection not only of theology and theoretical physics, but of most human learning, including Johnson's very own writings. The latter are an attempt to communicate and describe the nature of language and its relation to the universe in spite of the fact that this very

description renders a priori impossible both description and communication. The consequence of this paradox is a struggle between conflicting ideas which begins in the Treatise and becomes increasingly apparent in later writings. The analysis of this struggle presented in Chapters I and II leads to the following major conclusions. (1) Language, which has no inherent defects but contains certain unavoidable limitations, is of benefit to human affairs. However, it is frequently misused both by its consumers and its producers who employ it in violation of its limits. (2) Verbal knowledge must be recognized as important especially since it has connections with sense experience. Hence the distinction between verbal and sensible knowledge cannot be taken as a strict dichotomy. (3) Johnson's persistence in employing this terminology forces him, in effect, to interpret nature by language, that is, to commit the very fallacy which he had labored to eliminate. This shortcoming is partially responsible for the struggle between conflicting ideas and for the seeming "reversal" of his doctrine in The Meaning of Words. (4) But modifications in his later work, as for example, the notion of an intellection, are a logical following out of ideas entertained and interests evinced in the early work.

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ALEXANDER BRYAN JOHNSON'S
COPERNICAN REVOLUTION

by

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A particularly fascinating fact about the early American philosopher Alexander Bryan Johnson is that he anticipated ideas more than one hundred years before they came to play an essential role in modern philosophical thought; yet his work remained unrecognized until recent times. Perhaps Johnson's ideas were too radical or, perhaps, since he was a banker and not a professional philosopher, he was not taken seriously by his philosophic contemporaries. But whatever the reason for his former neglect, today it is necessary to recognize and appraise his ideas.

Johnson discovered that nearly all erroneous speculations are based on the attempt to acquire knowledge through language, and to express and transmit in language the content of reality. This fallacy is caused by our perennial failure to understand the powers of language; "our misapprehension of the nature of language," according to Johnson, "has occasioned a greater waste of time, and effort, and genius, than all the other mistakes and delusions with which humanity has been afflicted." To remedy this affliction a reversal of the established relation between language and nature is required. In Johnson's words such a reversal amounts to "interpreting language by nature" and not, as we are accustomed, "nature by language." Thus Johnson's intellectual revolution consists in the reversal of accepted modes of acquiring knowledge and of alterations in linguistic usage.

The purpose of this paper is to analyse and assess this revolution and to show that unforeseen difficulties, engendered by Johnson's own ideas, necessitated a partial repudiation of his radical doctrines. From his empirical epistemology and his insights into the nature of language Johnson concluded that there exist two types of knowledge; the first based on sense experience, the second on language; and that the former is to be cultivated rather than the latter. The depreciation of knowledge derived from language, however, would have involved not only the rejection of vacuous speculations but also theology and a great deal of human learning, including Johnson's own doctrines. The consequence of this paradox was a struggle between conflicting ideas which begins in Johnson's Treatise and is resolved in his The Meaning of Words.

