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WITTGENSTEINIAN LANGUAGE-GAMES AND MICHAEL POLANYI'S CONCEPTION OF LINGUISTIC KNOWLEDGE

Page 114 of my copy of M. Polanyi's magnum opus *Personal Knowledge* features the following statement: "'Grammar' is precisely the total of linguistic rules which can be observed by using a language without attending to the things referred to. The purpose of the philosophic pretense of being merely concerned with grammar is to contemplate and analyze reality while denying the act of doing so." 1/ And Polanyi emphasizes in footnote 2 on the same page: "The same criticism applies to Wittgenstein's use of the term 'language-game'." 2/

Setting aside - for the moment at least - the question whether Polanyi's remark gives an even approximately correct characterisation of what the Wittgenstein of 'Philosophical Investigations' understands by 'grammar' and/or 'language-game', it might still be doubted whether a reconstructive enterprise, which hopes for some elucidation of Polanyi's conception of linguistic knowledge by relating it to Wittgenstein's notion of a language-game, can get off to a promising start. In what follows I want to try to show that this optimism is indeed justified.

As everybody knows, the post-Tractarian Wittgenstein is not a philosopher easy to understand - there is almost no section considered central to the 'teachings' of 'Philosophical Investigations' which is not subject to heated controversies and sophisticated arguments. Still it seems possible to isolate some characteristic features, clustered around and internally connected to the notion of a language-game, which can be used as a background setting against which one might investigate what I want to call the strong element of Wittgensteinianism in Polanyi's conception of linguistic knowledge as a form of essentially personal knowledge.

I am not claiming that Polanyi's conception is Wittgensteinian in the sense that an attentive reading of 'Philosophical Investigations' could reveal it as containing Polanyi's philosophy of language. There are blatant deficits - one might even speak of naiveties - to be found in Polanyi's explication not found in Wittgenstein, and some very interesting notions concerning the meaning of descriptive or denotative terms in Polanyi alien to what Wittgenstein would have us believe. What I do claim is (1) that the conception of the kind of knowledge a competent language-user has, in virtue of the fact that he knows some

1/ Polanyi (1), p. 114.
language L, can illuminatingly be analysed given this Wittgensteinian background conception, without abandoning the overarching Polanyian paradigm of personal knowledge; and (2) that such an analysis can conceivably help to strengthen major points of Polanyi's analysis of linguistic knowledge as a form of personal knowledge and help to avoid or eliminate altogether some serious shortcomings of the Polanyi conception - again without neglecting or distorting the important intuition central to Polanyi's conception of language, which seems to fuel his criticism of Wittgenstein - namely, that language as a means of articulated rational thought is an indispensable medium in which to grasp, 'make contact with', reality 3/ in a theoretically illuminating way.

What follows encompasses three sections: a short reconstruction of Polanyi's notion of linguistic knowledge 4/; a very incomplete explication of Wittgenstein's language-game concept; finally a critical account of the Wittgensteinian element in Polanyi's conception in conjunction with a synoptic exposition of certain deficits inherent in his account of linguistic knowledge.

Before starting on the first section, however, a short remark concerning the intended meaning of 'linguistic knowledge' is in order: the term is used to denote a kind of first-order knowledge - the type of knowledge, or ability, a language-user has by virtue of the fact that she knows how to speak/understand some (natural) language L (natively); it is not used in the second-order Chomskyan sense of 'strong empirical theory representing the syntactico-semantic competence of an ideal speaker/hearer of some (humanly possible) natural language L'. For Polanyi, knowing a language is akin to being able to practice an art or a complex system of interconnected skills - in a sense to be explained, there can be no 'science of language'.

Wittgenstein too, although for quite different reasons, is antagonistic to the idea of such a science; meaning is what is explained in explaining the use of language in language-games and such an understanding must be taken to represent a kind of knowledge ideally completely transparent to the linguistically uninformed, i.e., 'theoretically naive', language-user.

3/ Perhaps, more in keeping with Polanyi's conception of the real, to be written with a capital R!

4/ My reconstruction of Polanyi's notion of linguistic knowledge is based on the account given in Personal Knowledge and The Tacit Dimension. I do not refer to any material published by H. Prosch in 'Meaning'; A good introduction to the breadth of concerns of M. Polanyi's philosophical thinking can be found in R. Allen's lucidly written Polanyi; for thorough analyses of central themes in, Polanyi, vid. the studies by Gelwick, Grene and Prosch.
If one thinks of the development of the argument in *Personal Knowledge* in a semi-Hegelian manner, i.e., as a 'phenomenology' of types or forms of personal knowledge, articulation of personal knowledge (and articulated personal knowledge) is not to be had without the function of language.

Linguistic knowledge is a form of articulated personal knowledge and serves the function of increasing our mental powers of sustained articulated thought, problem-solving and theory-building.

Clearly, Polanyi places linguistic knowledge in an evolutionary perspective of an emergence of articulated forms of personal knowledge with universal, i.e., truth-directed intent. Our linguistic capacities are supervenient on pre-linguistic, inarticulate powers, which, as Polanyi states, "we already observe in animals."

In what follows I shall set aside the empirical arguments Polanyi produces in support of his thesis of emergence and concentrate on his functional specification of linguistic knowledge. His learning-theoretic remarks (referring to Skinner and Piaget among others) concerning supervenience of symbolically articulated thought on forms of inarticulate (general) intelligence - powers of invention, observation and interpretation - are very probably empirically false - think of the Chomskyan paradigm of language learning which, of course, Polanyi could not be familiar with when he prepared the Gifford lectures of 1951-52.

Fortunately, these arguments are not necessary for an understanding of the thesis of the necessarily personal nature of linguistic knowledge; furthermore, as Polanyi himself states, he is not engaged in empirical speculations on the origins of language, but in epistemological reflection on the function(s) of language.

I shall also bypass his references to the theory of language-functions developed by Karl Bühler: in the light of recent philosophy of language this theory, although helpful, neglects the argumentative function of language and is, in a speech-act-theoretic perspective, seriously incomplete.

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5/ Articulated personal knowledge is not to be confused with forms of explicitly specified or formalized knowledge, which themselves are supervenient on functions of symbolic articulation.


7/ Polanyi (1), p. 70.

Polanyi concentrates on the representative function of language, leaving expression and appellation to its communicative function. It is advisable to focus on the following four domains that are truly 'Polanyian':

(1) the theory of the denotative (or descriptive) meaning of terms (words);

(2) the theory of sentence-meaning or truth;

(3) the theory of assertion or communication;

(4) the theory of the convivial nature of language use and the attendant fiduciary or commitment-theoretic mode of meaning.

ad (1): Theory of denotative meaning:

A language (Polanyi also mentions diagrams, maps and pictures) can be specified functionally in terms of two Principles, which are subserved by what Polanyi calls Laws: the Principles are Representation and the Operation of symbols to assist processes of thought. The Laws underlying the first Principle are those of Poverty, Grammar, Iteration and Consistency; the second Principle is based on the Law of Manageability. The law of poverty expresses a postulate of finiteness: to be cognitively manageable, linguistic vocabularies must be finite - only repeatedly used words acquire meaning - and sets of grammatical rules (the law of grammar) must be finite to ensure the possibility of understandable sentential constructs with fixed meanings. The law of iteration states that words must be repeatedly identifiable as the same; only if typological identical words can be used repeatedly can they acquire meaning.

"Only if repeatedly used utterances are used consistently can they have a definite meaning, and utterances without definite meaning are not language." 9/ Consistency is an 'unspecifiable quality':

"Since the world, like a kaleidoscope, never exactly repeats any previous situation ... we can achieve consistency only by identifying manifestly different situations in respect to some particular feature, and this requires a series of personal judgements. First, we must decide what variations of our experience are irrelevant to the identification of this recurrent feature, as forming no part of it, i.e. we must discriminate against its random background. Secondly, we must decide what variations should be accepted as normal changes in the appearance of this identifiable feature, or should be taken, on the contrary, to discredit this feature altogether as a recurrent element of experience.... Every time we use a world for denoting something, we perform and accredit our performance of an act of generalization and that, correspondingly, the use of such a world is taken to designate a class to which we attribute a substantial character." 10/

9/ Polanyi (1), p. 79.

10/ Polanyi (1), pp. 79-80.
So, denotative meaning as definite, i.e. consistent meaning, seems to be rooted in personal acts of feature-extraction, abstraction and generalization; furthermore the entities recurrently denoted (or meant) should form a 'substantial' or 'natural' class:

"Moreover, by being prepared to speak in our language on future occasions, we anticipate its applicability to future experiences, which we expect to be identifiable in terms of the natural classes accredited by our language. These expectations form a theory of the universe, which we keep testing continuously as we go on taking about things. So long as we feel that our language classifies things well, we remain satisfied that it is right and we continue to accept the theory of the universe implied in our language as true." 11/

Furthermore, Polanyi seems to think of denotative intensions thus constituted as consisting of semantically simple features, corresponding to the ontologically simple constituents of the basic 'classes' of entities denoted by our language. Denotative word-meaning is based on personal acts of feature-integration and feeds into tacitly presupposed theories of the world, thus constituting a conceptual framework in the light of which we interpret our experience. It is of the utmost importance to recognize that this type of meaning is intrinsically connected to processes of world-directed identification and reidentification of kinds of entities and also to truth-directed processes of judgement or expectation. Linguistic knowledge of denotative meanings of words is not just knowledge of language, but subsumes judgement-based knowledge of the world. Consistency, i.e. definiteness of meaning, is eventually dependent on this integrative property of word-meaning.

In grasping the meaning of a descriptive word we become acquainted with a semantically represented part of the world. Another quotation should make this clear:

"Think of a medical student attending a course in the X-ray diagnosis of pulmonary diseases. He watches in a darkened room shadowy traces on a fluorescent screen placed against a patient's chest, and hears the radiologist commenting to his assistants, in technical language, on the significant features of these shadows. At first the student is completely puzzled. For he can see in the X-ray picture of a chest only the shadows of the heart and the ribs, with a few spidery blotches between them. The experts seem to be romancing about figments of their imagination; he can see nothing that they are talking about. Then as he goes on listening for a few weeks, looking carefully at ever new pictures of different cases, a tentative understanding will dawn on him; he will gradually forget about the ribs and begin to see the lungs. And eventually, if he perseveres intelligently, a rich panorama of significant details will be revealed to him: of physiological variations and pathological changes, of scars, of chronic infections and signs of acute disease. He has entered 11/ Polanyi (1), p. 80.
a new world. He still sees only a fraction of what the experts can see, but the pictures are definitely making sense now and so do most of the comments made on them. He is about to grasp what he is being taught; it has clicked. Thus, at the very moment when he has learned the language of pulmonary radiograms, the student will also have learned to understand pulmonary radiograms. The two can only happen together." 12/

Thus denotation is shown to be an art and the grasping of the denotative meaning of a word (or group of words) reveals itself to be a personal act of acquiring a type of knowledge not restricted to the 'merely grammatical' way words are used. Polanyi of course recognizes that talk of linguistically based conceptual frameworks invites charges of conceptual (and ontological) relativism, 13/ but, given the truth-directed nature of this type of linguistic knowledge, such a charge can easily be averted. The ontology implied by such framework can be rationally revised in the light of truth-directed theories of the universe. As Polanyi claims: "Our choice of language is a matter of truth or error, of right or wrong, of life or death." 14

Intensions thus constituted are of three types or strata:

1. the 'utmost' stratum of 'readily specifiable properties' of the elements of the denoted class;

2. the stratum of 'known but not readily specifiable' shared properties, whose focal analysis leads to a deepened understanding of the kind of entities denoted;

3. the deepest stratum of an 'indefinite range of anticipations', a range of properties to be discovered in the future if the tacitly presupposed theories implied by the semantics of the language have really 'made contact' with a deep and rational reality.

This deepest level of denotative or conceptual meaning of a language serves most fruitfully to empower the aforementioned Principle of Organisation of thought: such indeterminate meanings are the objects of theory-building and theory-emendation in the process of ongoing scientific discovery and are thus the starting points of a melioristically conceived process of the evolution of personal (scientific) knowledge.

Summing up, one can state:

Linguistic knowledge of denotative meaning is interwined with knowledge of the world, i.e. a conceptual framework which forms the basis of truth-directed judgement and is suffused with ontological presupposition: to be able to use words denotatively is to be the master of a type of skill which - as the basis of a type of personal act - integrates these dimensions of linguistic knowledge.


Curiously, Polanyi does not have a theory of sentence-meaning in the tradition either of a Frege or Tarski type theory of meaning or truth. He seems to consider the notion of sentential meaning to be unproblematic, perhaps simply to be (recursively) constructed by application of the Law of Grammar to lexically simple constituents of the vocabulary of some language L. In this perspective, sentential meaning is a function of the meanings of subsentential expressions in a structure-sensitive way, i.e. taking account of the syntactically specifiable structure of the sentential whole. The notion of truth-condition plays no role in this type of theory of sentence-meaning, at least not in a way ascribable to M. Polanyi. He gives an analysis of the meaning of the expression 'is true', which shows him to hold a redundancy theory of truth coupled to an account of the performative use of 'is true' in assertive utterances which reveals this predicate to be an essentially non-semantic expression. 'Is true' is a predicate the standard use of which is to 'declare allegiance to or trust in' a fact, assertion or belief. If thus used it expresses an assertion of or an assertive attitude towards the content of a declarative belief:

"... 'p is true' cannot be said to be true or false in the sense in which a factual sentence can. 'p is true' declares that I identify myself with the content of the factual sentence p, and this identification is something I am doing, and not a fact that I am observing. The expression 'p is true' is therefore not itself a sentence but merely the assertion of (an otherwise unasserted) sentence, the sentence p. To say that 'p is true' is to underwrite a commitment or to sign an acceptance, in a sense akin to the commercial meaning of such acts. Hence we cannot assert the expression 'p is true', any more than we can endorse our own signature; only a sentence can be asserted, not an action." 15/

Consequently Polanyi believes himself to be able to show that the well-known semantic paradox of the Liar does not even arise, since, as Tarski has shown, it depends (ceteris paribus) on taking 'is true' and 'is false' to be complete semantic predicates. It is no reason for wonder then, that for Polanyi, a truth-theoretic or truth-conditional account of sentence-meaning is not to be had. 16/

(Consequently he reinterprets Tarski's well-known "'Snow is white' is true iff snow is white" as 'If I believe snow is white I shall say that 'snow is white' is true'.) 17/

Linguistic knowledge of sentence-meaning seems to be a structure-sensitive function of linguistic knowledge of the meaning of sub-sentential expressions as parts of the sentential whole: needless to say* this type of knowledge represents a kind of personal knowledge since

141 Polanyi (1), p. 113
151 Polanyi (1), p. 254
161 Vid. Polanyi (1), p. 255
171 Polanyi (1), p. 255.
it cannot be separated from that kind of knowledge a speaker has who is able to use correctly descriptive terms occurring within sentences. The indeterminacy of descriptive meaning carries over into sentence-meaning: since implication is only defined for sentences (or sentence-schemas), sets of sentences organized logically into theories show that characteristic indeterminacy of meaning which is the mark of theories which prove themselves correct or 'true' in the 'deep' sense of being (or coming to be recognized as being) rational representations of reality - the ultimate term of the universal intent of linguistically articulated personal knowledge incorporated in scientific theories.

ad (3): Theory of communication, or assertion:

Polanyi treats the communicative function of language under the chapter-heading of conviviality. It is one of the basic functions of language and encompasses all the aspects of language-use analyzed by Karl Bühler.

"Spoken communication is the successful application by two persons of ... linguistic knowledge and skill... one person wishing to transmit, the other to receive, information. Relying on what each has learnt, the speaker confidently utters words and the listener confidently interprets them, while they mutually rely on each other’s correct use and understanding of these words. A true communication will take place if, and only if, these combined assumption of authority and trust are in fact justified." 18/

Appellative and expressive acts of communication set aside, successful communication of beliefs about the world presupposes shared meanings and shared language-symbols: a speaker S has to be able to rely on the fact that his audience will associate the same meanings with the same terms in order to be justified in supposing that they will understand his linguistic expressions of belief. Since, as Polanyi emphasizes, "To know a language is an art, carried on by tacit judgements and the practice of unspecifiable skills"19, it is clear that the communicative mode of language-use is an inherently convivial mode: speaker and hearer have to share a substantial amount of linguistic knowledge in order to understand each other's utterances - in short: they must be members of the same speech-community. But conviviality means still more; not only do they have to share linguistic meaning, they must agree on the basic conceptual framework underlying their experience of the world and organizing their cognitive, emotional and voluntary encounters with it and each other.

The requirements of conviviality form a massive and ineliminable background against which communication of meaning and belief is possible.

However, it must be emphasized that convivial communication seems for Polanyi to be functionally dependant on powers of representation, powers of linguistic articulation of

meanings, thoughts or beliefs independently grasped or formed, powers which are conceived in strictly individualistic terms. It appears that Polanyi thinks of communicative acts as acts of transmission (and reception) of meanings antecedently, i.e. pre-convivially constituted, i.e. fully constituted in the languages of the speaker or hearer who only contingently agree in their background semantics and ontology. The constitution of meaning is not intrinsically convivial.

Of course that successful acquisition and practice of the art of language is based on tradition and a form of learning, where the authority of the competent co-members of the respective speech-communities is unquestioned and must be relied on. Still, Polanyi nowhere states that this is a conceptual precondition of knowledge of meaning.

Personal knowledge, as articulated in linguistic representations of experience, is an individualistic property of speakers; if I communicate a thought or belief to you by using the sentence 'The cat is on the mat' I apparently must possess an antecedent, i.e. pre-communicative, grasp of the meaning of that sentence, and also of the meaning of its subsentential expressions, a grasp which is a function of my acquaintance with the fact believed, and of my skill in the denotatively correct use of descriptive words of the sentence, i.e. fitting to the facts.

Still, it is obvious that, for Polanyi, the explicitly communicative use of language is explicitly convivial: if speaker and hearer do not (largely) share a language, its conceptual framework and ontology, they will not be able to practice the convivial mode of meaning.

ad (4): Theory of the fiduciary or commitment-theoretic mode of meaning:

Linguistic knowledge as a form of personal knowledge is characterized by a strong fiduciary component. III representing to himself the state of affairs 'The cat is on the mat' or in expressing his belief that the cat is on the mat in an act of hearer-directed communication, a speaker relies on his powers of the denotatively correct use of terms, he unthinkingly trusts his ability to grasp sentence-meanings, and he commits himself unflinchingly to the attendant ontologically laden conceptual framework and, in communication, to the requirements of the convivial mode of meaning.

If a speaker accredits himself knowledge of denotative meaning focally, he relies subsidiarily (or tacitly) on his observational powers of integrating diverse experiences of cat-like entities into a coherent whole, i.e. the intension 'cat'; if he accredits himself knowledge of sentence-meaning focally, he subsidiarily (or tacitly) trusts his abilities to integrate diverse subsentential meanings into a syntactically well-formed and semantically non-anomalous whole; if he engages focally in an act of belief-communication, he commits himself subsidiarily to all the requirements of the convivial mode of meaning as satisfied requirements. The two-term structure 20/ of personal or tacit knowledge is vindicated on every level of

20/ Vid. Polanyi (2), Chapter One.
linguistic knowledge, thereby introducing into the art of meaning an indispensable fiduciary element.

"We must now recognize belief once more as the source of all knowledge. Tacit assent and intellectual passions, the sharing of an idiom and of a cultural heritage, affiliation to a likeminded community: such are the impulses which shape our vision of the nature of things on which we rely for our mastery of things. No intelligence, however critical or original, can operate outside such a fiduciary framework." 21/

In the last resort,

"...we can voice our ultimate convictions only from within our convictions - from within the whole system of acceptances that are logically prior to any particular assertion of our own prior to the holding of any particular piece of knowledge." 22/

As was pointed out above, the truth-predicate is for Polanyi a paradigmatic fiduciary predicate, i.e. a predicate the noncognitive meaning of which resides precisely in the function of (focal) affirmation or declaration of trust in or commitment to an antecedently grasped or formed belief or assertion. Since ultimately the faculty of language is subservient to the articulation or organisation of truth-directed forms of personal knowledge - our best theories as to the nature of the world - the fiduciary mode of meaning is seen to be the very groundwork on which the whole edifice of knowledge is erected. Knowledge of 'deep' truth is not to be had without a basic, unquestioned commitment to the personal mode of meaning represented in the diverse forms of linguistic knowledge which Polanyi has endeavored to analyze; having shown this connection to be inevitable puts him firmly among the most exciting philosophers of our time.

'Language-game' denotes one of the - perhaps even the - central notion of the later Wittgenstein's philosophy of language and it is a particularly apt concept to investigate if one wants to get clear about the 'Wittgensteinian core' of M. Polanyi's concept of language. Wittgenstein's use of the term - not backed up by any 'theory' of language-games or a general criterion of language-game-identification - has of course been the object of intense scrutiny of commentators. 23/ In what follows I shall only be able to take up a few points particularly relevant to the topic of this lecture, neglecting or setting aside many of the subtle issues discussed and (almost) all of the elaborate explications given in the literature.

The term 'Sprachspiel' makes its first appearance in the context of a discussion of ostensive definition in 'Philosophische Grammatik', is later introduced in 'The Blue and

21/ Polanyi (1), p. 266.
22/ Polanyi (1), p. 267.
23/ Vid. the books by Kenny, Hacker/Baker (1), Hacker/Baker (2) and of course Kripke.
24/ Wittgenstein (1), par. 24-26.
Brown Books' as denoting primitive languages or primitive uses of language, e.g., uses of language observable in language-learning children, 25/ and reaches its mature meaning in 'Philosophische Untersuchungen' 26/ to be developed further in illuminating ways in 'Uber Gewissheit'. 27/

I want to mention six features of the mature notion as especially relevant to our discussion, taking Wittgenstein's remarks in 'Philosophische Untersuchungen' par. 23 and par. 43 as starting points, i.e. that speaking a language is part of a practice or form of life; that, looking at how language is actually used, we notice an amazing multiplicity of language-games and that, for a large class of cases of the use of words, it is permissible to say that the meaning of a word is its use in the language or its attendant language-games.

(1): Language-games are natural and inescapable contexts of practical language use in which the meanings of signs, words and sentences are constituted or realized. Just as there are indefinitely many uses of signs, so there are indefinitely many language-games. The meaning of a sign is neither given by an inner, intentional or semi-intentional state of the sign user nor can it be identified, as in the case of proper names, with the bearer of the name, nor is it given by a platonic entity, a concept or sense (in the manner of Frege) which has to be grasped by the user of the sign in order to understand its meaning.

(2) Language-games are not 'grammars', i.e. abstract sets of rules or rule-like directives regulating language-use in a calculus-like way. Language-games are ways of using language in the context of 'forms of life' itself constituted by these 'games': the analogy with the notion of game is not to be understood as hinting at a 'game-theoretic' notion of meaning, i.e. meaning as given by the rules of a strategic calculus of use. Language-games contain diverse types of activity over and above practices of (linguistic) sign-use, e.g., gestures and all sorts of non-verbal actions. They rely on a framework of very general facts of nature and humanly characteristic ways of reacting to types of experience. The language-game of pointing out colors of objects, e.g., of using the term 'blue' ostensively, either in characterizing a portion of experience or in explaining the meaning of 'blue', is realized through a complex web of interrelated and intertwined activities, presuppositions and assumptions: players of the game must have a shared understanding of what it is that is pointed out or given as a sample of a color; they must share criteria of identification and reidentification of coloured objects as part of an implicit ontology of what it is that colour-terms can be predicated of; the meaning of 'blue' in utterances like 'This is blue' cannot be understood unless there is agreement on the truth of empirical descriptions of the sample pointed to, etc. Such language-games of ostensive definitions (or denotative language-use) rely on the wider background of language-games of speaking about objects descriptively, classifying objects according to their colour-properties, acting in different ways in reaction to such classifications; in short: language games as the medium of the constitution of linguistic meanings are holistically structured - up to the point where they constitute the major intricate markings in the web of a whole 'Lebensform'.

26/ Wittgenstein (3), par. 23 and par. 43.
27/ Wittgenstein (4), par. 3, par. 204, par. 370, par. 455-457.
(3) Citing a rule (or giving a rule-formula Hon) can be a way of explaining the meaning of a term used in a language-game, but language-games are not types of activity governed by sets of precisely defined rules; naturally occurring language-games are often (or involve) rule-following activities, but the competent use of language is not the application of a calculus of rules.

'Precise' rule-formulations can always be misunderstood or applied incorrectly, while language-games which rely on a diffuse understanding of the meaning of, e.g., spatial terms, can work perfectly well ('Come over here!). If need be, one can regulate the use of terms according to strict rules, but this is not a generally necessary condition of the meaningfulness of a word or sentence. The meaning of a term is not a sharply demarcated shadow which cannot be trespassed, projected by precise rules of its use in the language. Meaning as constituted in language-games is an inherently imprecise notion.

(4) The meaning of a word is what is explained when its meaning is explained - and that is its use in a language-game. 28/ Also: the meaning of a word is what is understood or known when its meaning, its use in a language-game, is understood: there is an internal connection between explanation and understanding, because for a speaker to be able to explain correctly the meaning of a word is itself a non-contingent expression, or criterion, of his possessing a correct understanding of the use of the term, i.e. that he knows its use in the language-game.

For Wittgenstein, linguistic knowledge as knowledge of meaning must be (at least 'in principle') completely transparent to the language-user in the sense that in referring to the ordinary practices of the use of a word (and that includes the 'meaning-explanatory' use) a complete understanding of its meaning can be achieved. Knowing how to use a word correctly consists in having mastered a technique: the technique of competent participation in the practices of the language-games concerned. It is therefore obvious that linguistic knowledge cannot be equated with knowledge of (precise) rule-formulations; it is to be conceived on the model of a practical ability, not as a form of 'cognitively hidden' theoretical knowledge (only) applied in contexts of language-use.

(5) Language-games are public objects: even acts like trying to convince yourself of the truth of some proposition have descriptions as meaningful acts which put them in the space of public performances. Whether language-games are inherently social objects, in the sense that to use language correctly in a rule-following way a language-user has to share in a practice, custom or institution factually shared by another language-user, has been a matter of heated debate. Proponents of the inherently social nature of meaning have gone so far as to claim as the central tenet of 'Philosophische Untersuchungen' a conception of meaning which drops (Tractatus-related) truth-conditions in favour of conditions of justified use of language as the main explicatory notion. 29/

28/Wittgenstein (3), par. 560,

29/Vid. Kripke; see also the excellent book by McGinn.
Without dogmatically prejudging the issue and without wading into the quagmire of the (in)famous 'private language argument', still I think this much can be said in favour of 'semantic socialism': even though Wittgenstein makes it quite clear that he thinks of the capacity to use language correctly - the mastery of a technique - as an individualistic notion, claims to such capacities must - at least 'in principle' - be checkable by other language-users, even though factually one might be in a Robinson Crusoe situation. If, in a conceptual way, the individual language-user is taken to be the sole authority as to the correctness of his linguistic performances, the notion of meaning loses all normative content: but, as Wittgenstein explains, thinking one is following a rule correctly (a paradigmatically individualistic notion) must not be equated with following a rule correctly. 30/

Furthermore, language-games are embedded in shared life-forms, not individual life-styles, even though they are part of the latter, too. A minimally social conception of linguistic meaning seems also to be implied by the remark that agreement in definitions and judgements is a necessary precondition of 'Verstandigung': that normally we do not find ourselves quarrelling about the correctness of our use of words and sentences in everyday linguistic performances is a function of a socially shared 'Lebensform'.

(6) In 'Uber Gewissheit' par 455. ff. Wittgenstein notes (my translation): "Language-games depend on the fact that words and objects are reidentified... When I am in doubt or uncertain about whether that is my hand... why then not too about the meaning of these words?" In par. 457 he asks himself:

"Do I want to say that certainty is part of the essence of a language-game?"

And in par. 3 he writes:

"If for example someone says: 'I don't know whether there is a hand' one could tell him: 'Look closer'." Wittgenstein adds the commentary: "This possibility of convincing oneself belongs to the language-game. It is one of its essential features."

Doubting whether this is a hand, and not just a cleverly devised contraption, a bionic device maybe, doubting whether I really know the meaning of the words I use to formulate this very doubt - are just moves in language-games which are not different from any other language-games.

Doubting whether this is in fact a hand presupposes certainty about the truth of a whole cluster of experiental propositions - it presupposes a framework of certainties the unquestioned acceptance of which makes this language-game possible, certainties on which to rely I have every right - even though I might be at a loss (if asked) to enumerate and justify them. The right to be sure of this is not a function of my having made sure that my belief is justified - I have not subjected my hand (as the referent of this belief) to any 'crucial experiments', and even had I done so, I would have had to accept many other experiental propositions as true to believe -without further justification.

As Wittgenstein notes: "At the base of justified belief lies unjustified belief." 31/ The notion that the right to certainty is a function of having refuted all possible doubt is just the victim of a nonsensical picture of what meaningful doubt as a viable move in a language game can consist in. The notion of meaning as anchored in the shared practice of language-games is held in place by the 'systemic' features that not every type of doubt makes sense ('Language idles') and the attendant right to certainty without support of further justification.

Players of language-games are committed to this predicament on pain of losing the notion (and practice) of meaning altogether.

The stage-setting for a critical exposition and evaluation of the thesis of a Wittgensteinian core in M. Polanyi's philosophy of language can reasonably be taken to be achieved; I want to complete the script in a series of three steps:

(1) an evaluation of Polanyi's criticism of (the later) Wittgenstein in *Personal Knowledge*;

(2) an attempt to show in what sense Polanyi can be considered to be a Wittgensteinian;

(3) a short exposition of the deficits in Polanyi's philosophy of language.

ad (1): It should be obvious (by now) that Polanyi's statement that

"'Grammar' is precisely the total of linguistic rules which can be observed by using a language without attending to the things referred to" 32/, with the attendant criticism of Wittgenstein's use of the term 'language-game' (apparently understood by Polanyi to be usable interchangeably with the term 'grammar'), does no justice at all to Wittgenstein's mature concept of a language-game. (Wittgenstein certainly held a calculus-view of language at one time, but this is characteristic of the early stages (1932-34) of his so called Transition Period, and comes under heavy fire of self-criticism once he reached the authoritative position of 'Philosophische Untersuchungen' 33/.

On the contrary:

The grammar of language-games using observation terms or of those linguistic practices featuring ostensive definitions cannot be understood without attending to the things referred to. A statement like 'This is blue' can express an empirically true proposition, but it can also function as a rule or norm of the meaning (use) of the colour-predicate, if the colour attended to is taken as a paradigm, sample or 'Master' 34/. The surface-grammar of the expressions of our language is not to be taken at face value; instead, one has to investigate the real use of the expression concerned. The grammar of such language-games is criterially

311 Wittgenstein (4), par. 253.
331 Cf. Wittgenstein (3), par. 81.
341 Wittgenstein (3), par. 50.
infused with experience of 'real' entities which play (or are given) normative roles: precisely
the language-game notion of a paradigm (normatively relevant denotative meaning of
terms) which, in a variety of senses, fuelled the Kuhnian revolution in the philosophy of
science, has its origin in Wittgenstein's 'grammatical' investigations into the meaning-
-constitutive function of experience-based norms or rules of language-use.

Essentially the same criticism applies to Polanyi's cryptic characterisation of the domi-
nant nominalistic or anti-metaphysical strain in modern philosophy of language:"... that
language is a set of convenient symbols used according to the conventional rules of a langu-
age-game."35/

Whatever this statement is meant to characterize, it certainly goes very wide of the mark
of anything Wittgenstein would have agreed to. Polanyi links up his criticism of 'nomina-
lism' with a reference to F. Waismann's (an early disciple of Wittgenstein) notion of the
'open texture' of the meaning of certain classes of terms -1 think Polanyi has seriously
misunderstood the real point of Waismann's position, but I do not want to comment on
this.36

The same applies to his criticism of Wittgenstein's descriptive account of a way of using
'pain'.37/ A grammatical investigation of the use of 'pain' in everyday language-games cer-
tainly does not aim to be a 'pseudo-substitute for the study of things referred to in its terms',
not only because doing armchair psychology (or philosophy of psychology) is not good sci-
ence, but simply because it is not self-evident (and must not be naively taken for granted)
that terms like 'pain' or 'depression' (or their derivatives) used in present tense first person
utterances really occur referingly, i.e. have a genuine referring function at all.

ad (2): More important, however, than this criticism is the acknowledgement that the
positive content of these remarks leads directly to the first element of the Wittgensteinian
core of M. Polanyi's philosophy of language: the fact that what Polanyi describes in
describing the constitution of the denotative meaning of (descriptive) terms, and the
knowledge of it, is a Wittgensteinian language-game (of sorts), and also that the knowledge
of meaning a competent participant in such a language-game must be presumed to possess
may very fruitfully be adressed as a form of personal (or tacit) knowledge. Think of
Polanyi's radiology-example referred to above. The language-game concept can be taken to
function as a background concept for understanding the process of acquiring the
denotative meaning of terms of radiology-language; it can function as the framework of a
cognitive introduction to the microcosm of this conceptual scheme and the kind of ontology
radiology-language is about. Getting to know the meaning of 'LISP', a (for my purposes)
fictitious descriptive term in the lexicon of radiology, engages the aspiring radiologist in a
complex web of moves of this language-game. Guided by her expert teachers and drawing
on her own knowledge of anatomy, she has to be able to recognize what a LISP is, taking the


36/ For an exposition of Waismann's philosophical work, vid. Waismann (1) and Wais-
mann (2).

37/ Polanyi (1), p. 113-114.
term to refer to a certain type of star-shaped filament on X-ray pictures of the lower half of the left lung struck by a certain form of pulmonary disease.

This involves being confronted with a series of X-ray documents showing typical or paradigmatic LISPS - textbook examples one might say. The statement 'This is a LISP' functions as a rule or norm of meaning, intensionally specifiable as 'This is a typical star-shaped filament...etc.' extensionally interpretable as "X-ray phenomena like THIS count as typical members of the extension of the predicate 'LISP'." Guided by this rule of meaning, and after having been introduced to different series of LISPISH-x-ray pictures deviating from the norm, she will eventually be able to diagnose LISPS - the statement 'This is a (slightly) atypical LISP' this time expressing a piece of (possibly) true empirical knowledge - having learned about LISPS and the meaning of 'LISP' at the same time.

In short, she has learned how to make a move in the language-game of diagnosing LISPS and, presumably, other types of language-game constitutive of the language (and 'science') of radiology.

Note also the rich cluster of empirical and semantical presuppositions forming the background of this language-game: knowledge of anatomy, a theory of the physical workings of X-ray machines, beliefs about the physical interaction of x-ray radiation with cell-structures, etc. The newly acquired semantico-empirical knowledge forms a window into a new 'world' of recognizing certain types of x-ray pictures for what they represent; being able to participate competently in the respective 'diagnostic' language game IS being able to move about confidently in this new world.

Given this example it should now be easy to recognize the second element of Wittgensteinianism: language-games only constitute meaning if taken in a fiduciary and convivial mode. Not only must the learner trust the judgement of her teachers; only in the convivial context of shared judgements of correctness of uses of terms like 'LISP' and of shared judgements about the truth-value of empirical statements about LISPS can the language-game acquire cognitive life. A Wittgensteinian could claim, correctly I believe, that successful diagnoses of LISPS are only possible given the background condition of a shared 'life-form' of moving about within the semantico-empirical microcosm of radiology. Polanyi, I think, could not but agree.

Consequently the possibility of convincing oneself that a certain x-ray picture really does show a LISP involves one in a tacit commitment to the whole superstructure of the language-game, and only in the light of an essentially shared knowledge of the descriptive meaning of 'LISP' - it must be shared or at least be sharable, otherwise it loses all normative content, because the idea of correcting deviant uses of 'LISP' simply evaporates - can one eventually stand up for the empirical truth of a diagnosis against all other fellow radiologists, possibly a stance that, if taken, saves the patient's life.
Finally, a third - perhaps the most important - element must be noted.

Linguistic knowledge is a form of personal knowledge - this statement expresses the basic insight of Polanyi's philosophy of language and, I think, now it will not be difficult for a Wittgensteinian to agree.

The knowledge a speaker has in virtue of the fact that she has mastered a certain technique - participation in language-games - can surely be called tacit or personal. Not only does Wittgenstein claim that this type of knowledge is based on skills, abilities or capacities which can only be acquired (or developed) in a shared practice of actual language use; knowledge of meaning is also unspecifiable in the strict sense that one has to draw on or presuppose the validity of the same type of knowledge in order to even carry out the very first steps in propositional specification, let alone formalization, of the whole superstructure which is internally implicated in the cognitive constitution of language-game meaning.

We can voice our convictions only from within our convictions, as Polanyi claims; in the same vein, we can explicate or specify language-games only from within language-games; and the attempt to do so will not amount to a super-language-game, specifying also the 'hidden essence' of its own inner structure, but to just another move (or series of moves) in an ordinary, non-privileged language game.

The notion of a 'science of language or meaning' in the sense of such a super-language-game is certainly an illusion - another point Polanyi and Wittgenstein can agree on. Still there seems to be a problem of sorts. The knowledge a speaker has when he understands a language-game Wittgenstein takes to be of a kind which, in principle at least, can be made completely transparent to the language user.

Explanation and understanding are internally related; what one understands when one understands the meaning of an expression in the context of a language game just is what is explained when the use of this expression is explained. Does not such a postulate of transparency amount to a postulate of complete speciflability of knowledge of meaning, if one accepts the criteria of correct use and correct explanation as authoritative and criterially sufficient?

Reflecting on two facts will show that this is not the case: (a) Language games involve a rich texture of presuppositions. Only in the light of these background conditions do they acquire semantical life. But these background conditions do not figure in criterially relevant explanations of meaning.

(b) If a 'player' of the above-sketched radiologist's language game featuring the term 'LISP' must be able to use the term correctly, and be able to explain successfully its pattern of correct use to another newcomer to radiology in order to count as knowing its meaning, in doing so she win" of course presuppose the whole language-game of the correct use of 'LISP' as a norm to be heeded, i.e. as a yardstick against which to measure the 'goodness' of
the explanation. But accepting this again brings in the whole superstructure of the meaning of 'LISP' on the recognition of and commitment to which her competence crucially rests.

The use the vocabulary of the concept of tacit knowledge developed by Polanyi in 'The Tacit Dimension': the transparency criteria of correctness of use and correctness of explanation cover only part of the knowledge represented as tacit knowledge in the first term of the two-term relation, taking the second term as focally representative of the knowledge of the meaning of 'LISP'. The two Wittgensteinian criteria postulate only a partial specification of the whole meaning-constitutive superstructure of the language-game represented in the first term and which is known tacitly, functionally unspecifiable as such.

The conception of linguistic knowledge as personal knowledge seems therefore to be a conception which can illuminatingly be integrated into a Wittgensteinian notion of knowledge of meaning, even though, as should not be overlooked, both thinkers differ widely in the purpose to which the notion is put. Polanyi's evolutionary, semi-Hegelian perspective of the emergence and development of different forms of personal knowledge assigns to linguistic knowledge an essentially subordinate position; on page 132 he calls the whole chapter on 'Articulation' a 'digression'.

Wittgenstein on the other hand is concerned with an 'heroic' elucidation of the grammar of (some) of our ordinary ways of using language in order to show 'the fly the way out of the fly-bottle'.

Still, on page 113 of Personal Knowledge Polanyi expresses his conviction that "our choice of language is a matter of... life or death." It is, I think, not far-fetched to believe that Wittgenstein would have agreed with the latter part of this statement.

38/ Polanyi (1), p. 132.

38/ Unfortunately C.B. Daly's interesting paper on Polanyi and Wittgenstein' was available to me only after having finished work on this lecture. Needless to say I find myself in agreement with many of the theses Daly puts forward regarding significant overlaps between Wittgenstein's and Polanyi's thinking, not just on the topic of language. It seems to me, however, that Daly's method of demonstrating agreement between Wittgenstein and Polanyi by way of juxtaposition of quotations often only catches surface-similarities or analogies which, on thorough analysis, turn out not to lead very far. A case in point is the example taken from Polanyi's remarks about how to analyse the meaning of 'justice'. He takes great pains to remind us that in such an analysis we have to consider the meaning of the term justice' from the perspective of the 'thing' or conception meant by it, and not just investigate its 'grammar', i.e. the rules of factual use of the term in a language of morals. Put in terms of his theory of the three strata of word-meaning, Polanyi envisages an analysis of the third, i.e. deepest level, the level of the normatively correct meaning of justice', grasp of which should inform our actual use of the expression. The meaning of justice' thus turns out to be a 'theoretical' entity, far removed from any merely 'grammatical' representation.
In closing let me point out three areas of Polanyi's philosophy of language which seem to be marred by serious deficits, perhaps even 'naiveties'.

(1) Lack of an adequate theory of linguistic communication:

Even though Polanyi's analysis of linguistic acts of assertion, in connection with an analysis of the Fregean assertion-stroke, points towards such an account, he seems to suppose that the primary linguistic functions, i.e. Representation and Organisation, are basically pre-communicative functions of articulated, individualistically conceived thought. As modern speech-act theory has shown, assertion or the 'constative' expression of true belief represents just one type of communicative act.

In conjunction with the fact that the convivial mode of meaning is conceived by Polanyi to be a contingent extension of what might be called the primary, individual mode of meaning, a charge of methodological solipsism would at least have to be investigated.

(2) Lack of a theory of sentence-meaning:

The fiduciary mode of meaning is conceived of as an essentially individualistic type of stance; propositional individuation of belief or convictions expressed in such a mode seems to be possible, however, only if a concept of meaning is at hand which covers the semantic content of such propositional attitudes in a systematically illuminating manner. The same

A similar point might be made concerning the 'deep-structure' of the conceptions of both thinkers of the fiduciary mode of meaning: as has been pointed out, the notion of language-game can be used to clarify Polanyi's insistence on the fiduciary core of our personal commitment to knowledge of truth and meaning. Still, Wittgenstein makes it very clear that an acritical agreement in the way we act (agreement in life-form) - a naturalistic notion - lies at the base of meaning, not an agreement in - individualistically conceived - grasp of Truth or evidence for Reality, which seems to be the anchor-point on which Polanyi's notion of personal commitment turns.

Daly's analogue of Wittgenstein's method of 'assembling reminders for a specific purpose' and Polanyi's way of combatting positivistic misconceptions of science - giving examples of the 'working rationality' of good science, a kind of 'Denk nicht, sondern schau!' for philosophy of science - exhibits the same pattern. Superficially, the point seems well taken, but closer analysis reveals significant discrepancies: the kind of knowledge to be made clear and consequently the kind of 'therapy' attempted in application of these methods differ widely in both cases. Wittgenstein has no interest in a 'theory' of science, however descriptively correct, because even if we came to realize that real science has 'Polanyi-structure', that would not alleviate our predicament of finding ourselves (almost) forced to misunderstand the grammar of our language, a conceptual structure which certainly does not give rise to 'metaphysical' misconceptions of science in the same (almost) natural way in which it generates the many-faceted illusions of metaphysical 'Schein' Wittgenstein sets out to unmask. Further examples could be given.
holds for Polanyi's analysis of commitment. Furthermore, talk of conceptual frameworks or of theories informing - in an ontological way - types of language use must be based on an account of sentence meaning. The same holds for Polanyi's thesis of the implicative or 'organisational' indeterminacy of meaning: implication within or across theories or interpretative organisation of 'texts' are notions which apply basically to sentences or equivalence sets of sentence meanings.

This deficit is possibly due to Polanyi's adherence to a redundancy theory of truth, resulting in a construal of the truth-predicate as a non-semantic predicate.

(3) Polanyi seems to be a metaphysical realist of sorts. Even though his construal of the notions of Truth and Reality bears a strong resemblance to pragmaticist, i.e. Peircian lines of thinking, often the metaphysical idiom of 'making contact with Reality' or of 'fitting Reality' seems to reduce to mere metaphor. Specifically, the idea that Truth and Reality designate 'structures' or 'terms' of a language (or grammar) that as a whole must be adequate to reality or 'fit' it seriously distorts his philosophy of language.

From a Wittgensteinian perspective one can say:

Language as a whole does not 'fit' the Truth about Reality in the sense (a) of fit to something external, the contingent ultimate 'aim' of linguistic representation; (b) of use as an instrument of articulation of pre-linguistic thoughts/theories which 'fit' or are 'in contact with' Reality.

We cannot justify 'grammar' by reference to an extra-linguistic truth or grasp of reality in the sense that 'grammar' is 'in order' if it lets us articulate the Truth about Reality in a deep and 'rational' way. 'True' is just a predicate of our language and it is applied to sentences (or 'theories'), grasp of the meaning of which lets us state truth-conditions which, representing existing states of affairs, then have factual import. 'Reality' only makes sense if conceived of as represented or representable in the mode of intersubjectively valid meaning, the paradigmatic realisation of which is precisely linguistic meaning.

However, the critical remarks just made should not detract from the importance of Daly's paper.

Perhaps what they show is simply that after pointing out possible close connections between Wittgenstein and Polanyi in a synoptic kind of way, 'case' studies are needed. In my lecture I have attempted such an investigation for the concept of language-game and the idea of linguistic knowledge as a form of personal knowledge.

40/ Vid. Wittgenstein (3), par. 496-502. It should be obvious that the foregoing remarks are not meant to be decisive comments on some of Polanyi's -possibly deepest - intuitions about the 'ultimate' significance of language. They should be taken as informal hints at difficulties besetting his philosophy of language which, if cleared up in further analyses, could very well strengthen his overall vision of the ineliminably personal nature of meaning and knowledge.
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The moral coefficient originates in the necessity of science. We need science in order to lead a good life. Science is an example of the good life. The telos of our interest in science is to have a good life. But science is not a means for any other activity. It is pursued for its own sake. The essence of science is the love of knowledge, and this knowledge should not be used as a stepping stone to gain economic benefit or political power. That science is for science's sake and the good life is for the good life's sake is reminiscent of Aristotle's conception of eudaimonia, happiness.

4. Science, comprising autotelic activities, is an example of the good life. What is a good life? The life whose purpose is in itself? The answers to these questions requires a close analysis of Polanyi's whole philosophical outlook; that is beyond the purpose of the present study. However, to provide some hints, it is proper to raise another question: In what respect is science an ideal model of the good life? A partial answer to this very complicated question is that scientists form the body of a great and good society. One of the distinctive characteristics of a good society is freedom. A free society has an end in itself. This end should not be imposed from outside. The good life requires a good society and a good society is a free society in the sense that it determines its own end. Notice that the desiderata for the good life are similar to those for science. The good life is a free, autonomous, autotelic, self-determined life. The same applies to science.

6/ What is the criterion of being moral? What distinguishes the moral from the non-moral? This is not the place to examine deeply this controversial issue. Roughly speaking, the moral is what is related to the possible answers given to the following question: "How should I live?" Any philosophical issue that revolves around this question can be taken as an ethical issue. Since "to lead a good life" has a conceptual link with some of the attempted solutions to this main question, it is a genuine ethical concept.

7/ LL, 6.

8/ SFS, 7.

9/ Nicomachean Ethics, 1097b 1-20.

10/ The members of a good society respect truth, desire justice, and love their fellows (LL, 30). Truth, justice, and love, these three conceptions may indicate an answer to the question of what the good life is. It is only possible in the good society. This society consists of compassionate, just members who can use their tacit powers, being able to dwell in their knowledge, and have their personal responsibilities for truth. An explication of the italicized terms will be given in the rest of the paper.

11/ LL, 6.

12/ LL, 30.