CONCERNING THE ROLE OF CONSCIOUSNESS IN LINGUISTICS

Esa Itkonen

> [There is] the danger of succumbing to one or the other of two temptations that dog the interpretive tasks; **failure of empathy**, the 'classical' error, too readily assuming a single norm, often our own, by which to judge diversity; and **failure of identity**, the 'romantic' reaction to diversity, giving one's heart too wholly or readily to another way of life, substituting its norm (real or imagined) to our own (Hymes 1964: xxv).

> [W]hat Kuhn needs for his theory [is] the ability to ward off the complete relativization of reality to culture, without at the same time ethnocentrically or presentistically projecting one's own conception of reality onto alien culture (Hoyningen-Huene 1993: 50).

Consciousness Denied

In its consistent denial of each and any use of consciousness, generative linguistics represents the antipode of the position that I will put forward in this article:

> [The linguist] studies language exactly as he studies physics, taking humans to be 'natural objects' (Chomsky 1975: 183). We must avoid the temptation to assume some notion of accessibility to consciousness with regard to mental states and their contents (Chomsky 1986: 230).

To this, it needs to be retorted that the only "human" that Chomsky qua linguist has ever studied is *himself*; and he has done so by analyzing such English sentences as his own *conscious* intuition deems either correct (grammatical) or incorrect (ungrammatical). Thus, Chomsky could not possibly study his research object (i.e. himself) on a par with natural objects because these differ from him in having no consciousness (unless, of course, panpsychism turns out to be right). By the same token, if he had disregarded what is accessible to his consciousness, he would have been left with nothing to study.

The same 'anti-consciousness' line of thinking is perpetuated by Jackendoff (2002):

> [I want to] purge linguistic theory of intentional terms like 'representation', 'symbol', 'information', [and] 'knowledge'. Knowing English is not really 'knowing-that' anything. To claim that knowledge of language is a variety of 'knowing-that' would seem to put it in the **conscious** sector, certainly not in the functionalist domain where we want it (p. 28, emphasis added).

It is easy to see that, just like Chomsky, Jackendoff is forced to contradict himself at each step. His data is constituted exclusively by English sentences without or with asterisks (e.g. *John adores himself* and *John thinks that you adore himself*), and he explains the use (and the lack) of asterisks as follows:

> [T]he notation * before a sentence indicates that it is *judged* ungrammatical [while the lack of

it indicates that it is *judged* grammatical] (p. 15, emphasis added).

It goes without saying that judging the (un)grammaticalness of sentences is an instance of *consciously knowing-that*, or at least of (consciously) claiming to consciously know-that. Hence, while Jackendoff intends to get rid of consciousness, he remains fully dependent on it, more precisely, on his own conscious knowledge of English.

A comprehensive criticism of the 'physicalist' philosophy that underlies generativism has been presented e.g. in Itkonen (1978) and (1996).

Consciousness Misconstrued

In stark contrast to generativism, such representatives of functional and/or cognitive linguistics as Wallace Chafe and Leonard Talmy have fully grasped the central role that consciousness plays in linguistic research. In my view, however, they misconstrue the nature of (linguistic) consciousness.

First, let us present Chafe's and Talmy's credentials as far as a *bona fide* defense of consciousness is concerned. At the same, the problematic nature of their position already becomes evident insofar as both of them unquestioningly identify consciousness with *introspection*:

> Only in the subfield of phonetics and those areas of psycholinguistics dominated by the psychological tradition has an exclusive commitment to public data been maintained. Most of linguistics differs radically from psychology in this respect. To take a simple example, linguists are happy to talk about a past-tense morpheme, a plural morpheme, or the like. But pastness and plurality are based squarely on *introspective* evidence. Although Zellig Harris, for one, hoped that the necessity for *introspection* could be overcome by examining nothing more than the distribution of publicly observable sounds or letters in large corpora, no one has ever really done linguistics in that way. ... [T]he study of discourse is equally dependent on *introspective* insights (Chafe 1994: 14–15, emphasis added).

> *Introspection* is the main methodology used in linguistics (Talmy 2007: 1, emphasis added).

What is wrong with this approach is, to put it bluntly, the failure to distinguish between *two* different types of non-observational knowledge, namely *introspection* and *intuition*. Both Chafe and Talmy do this in their own characteristic ways.

Chafe (1994) distinguishes between two, and only two, types of 'observation' namely 'public' and 'private', and he identifies the latter with 'introspection':

> The aspects that are publicly observable include especially the production of sounds and written symbols. There are other, certainly important aspects of language and the mind that are *privately* observable, accessible to each individual but not in any direct way to others. Meanings, mental imagery, emotions, and consciousness are in this category. Observing one's own mental states and processes is often called *introspecting* (p. 12, the first emphasis added).

In the sequel (on pp. 13–25), Chafe admits that, according to the prevailing opinion, only results of 'public observations' qualify as 'objective' and 'scientific'. He makes a valiant attempt to show that, in spite of its 'subjective' nature, introspective data

too deserve to be taken into account. Of course, the most cogent argument to this effect is the one that he adduces in the preceding quote: There is simply no alternative to using 'private observations'. For the same reason, Talmy's (2007: 16–20) defense of 'introspection' against 'empiricism', though correct in itself, is unnecessary.

Chafe (2002) repeats and elaborates the thesis of his 1994 book. As he sees it, language is a dichotomous entity, consisting of thoughts and sounds:

> Sounds are publicly observable and objective researchers can record and measure them. But thoughts are private; ... All of us are having thoughts all the time, as long as we are conscious. We know we are having them, we can examine introspectively what they are like, ... (p. 306).

It is added later (p. 309) that even when thoughts are 'filtered' through 'semantic structuring', they are still identifiable as thoughts. — Three comments will now be made concerning Chafe's position.

First, there are no 'public observations'. Every observation is a cognitive act based on the use of one of the five senses and, as such, it is purely subjective in exactly the same sense as every supposedly 'private' observation. What the misconceived 'public vs. private' dichotomy means to say is that the knowledge produced by sense impressions is *more reliable* than the knowledge produced by any other means.

Second, the claim in the previous sentence is obviously false. Knowledge of logic and (elementary) mathematics is generally considered rather reliable, in spite of the fact that it results from 'private observations'. More generally, the distrust of 'private observations' turns out to be unjustified, as soon as introspection (about subjective contents of consciousness) is replaced by *intuition* (about objectively valid norms).

Third, the relation between sounds and meanings, as pictured by Chafe, is much too asymmetrical. De Saussure (1966 [1916]) already pointed out that the linguistic sign consists equally of sound and meaning, and that each of these, in turn, consists of substance and form:

> '[T]hought-sound' implies division, and ... language works out its units while taking shape between two shapeless masses [of thought and sound] (p. 112). Linguistics then works in the borderland where elements of sound and thought combine; their combination produces a form, not a substance (p. 113, emphasis deleted).

It follows that phonology (as distinguished from phonetics) qualifies as the 'form' of sounds, and it is a social institution on a par with semantics (or syntax) is.

Making a clear break with the preceding tradition, Talmy (2000) identifies (his own type of) linguistics with what he calls 'phenomenology', defined as study of 'conscious experience':

> [F]or cognitive semantics, the main object of study itself is qualitative mental phenomena as they exist in awareness. Cognitive semantics is thus a branch of phenomenology, ... [T]he only instrumentality that can access the phenomenological content and structure of consciousness is that of introspection" (p. 4). "And meaning is located in conscious experience" (pp. 5–6).

The domain where 'introspection' applies is defined in more detail in Talmy (2007). 14 different "aspects of language with high accessibility to introspection" are

enumerated, including "the grammaticality of a phrase/sentence". It is added that "[g]enerative syntax rests on the assumption of the reliability of such grammaticality judgments". This remark is correct, as such, but creates a totally wrong impression. It fails to mention that the same is true of *every* type of (theory of) syntax that has ever been produced, whether it is in the Indian tradition of Panini, or in the Arabic tradition of Sibawaihi, or in the Western tradition of Apollonius Dyscolus (cf. Itkonen 1991: Chaps. 2, 4, and 5)

The ontological status of meanings is characterized by Talmy (2007) in exactly the same way as in his 2000 book:

> [A] semanticist must go to where meaning is located, namely, in conscious experience. Here 'going to' = introspection (p. 19).

At this point it becomes imperative to state my own view of *how meanings exist*. In conformity with my social conception of language, I accept the broadly Wittgensteinian notion that the *meaning* of a linguistic form is its *use*, more precisely its use as determined by intersubjectively binding norms of language:

> Very few people seem to know what a meaning is, but everybody knows that an instrument has both a form and a function (= 'use'); everybody also knows how instruments are (meant to be) used (even if they may be misused now and then); and it would be odd for anybody to be puzzled about the 'ontological question' as to how the use of e.g. a hammer 'exists'. Seeing linguistic units as instrument-like entities consisting of form and function, and equating meaning with function, is likely to produce conceptual clarification (Itkonen 2005a: 187).

Accordingly, the meaning of *cat* consists in its being used to refer to, or speak about, cats; and the meaning of *if* consists in its several uses, for instance, to express hypothetical cause – effect relationships, as in *If people drink vodka, they get drunk*, or to express hypothetical effect – cause relationships, as *If people are drunk, they have been drinking vodka*. It may not be implausible to define the meaning of *cat* as the corresponding mental image, but it would be totally implausible to try to define the meaning of *if* in the same way (simply because there is no corresponding mental image).

To be sure, one might try define the meaning of *if* as a 'component' of the complex mental image connected with a sentence like ***If** people drink vodka, they get drunk*. But how does this mental image differ from the one connected with ***Because** people drink vodka, they get drunk*? I submit that these two images are exactly the same, but differ only in how they are used, i.e. to express either a hypothetical or an actual cause – effect relationship. One is reminded here of Wittgenstein's dictum that every picture, whether drawn on paper or just imagined, may be interpreted in an indefinite number of different ways. Now, if the interpretation of the mental image is the same as the use of the sentence (e.g. to express a hypothetical cause – effect relationship), then the mental image 'drops out' as irrelevant (for discussion, see Itkonen 1997).

Because the meanings of *cat*, *if*, and so on are *social* facts, getting to know them cannot be a matter of *introspecting* the contents of my own consciousness. And because they are *normative* facts, they cannot be known by means of *observation* (of spatio-temporal entities), because it is the norms (as known) which determine whether what we

observe is correct or not. Knowledge of norms is customarily called *intuition*. (NOTE!)

To give a rough analogy, it is on the basis of my (subjective) logical intuition that I know the truth of e.g. *~ (p & ~p)*; and what I know is not a matter of my consciousness but is, rather, 'out there', as determined by the intersubjectively binding rules (or norms) of logic. — The use of a hammer or of the conjunction *if* is certainly *accessible to* my consciousness, but it would be wrong to say (with Talmy) that it is *located in* my consciousness.

There was a time when the views that I have expressed in what precedes were not totally alien even to the main-stream linguistics:

> In very many ways, assertions made by linguists about meaning of utterances have been confused and misleading ... The mentalist definition [of meaning] is of no use to anybody who wants to know whether he correctly understands some linguistic form, if only for the reason that there is no way of knowing whether the images he has in his mind when he produces or encounters the form are shared by his interlocutors (Fillmore 1971: 273). From the writings of the ordinary language philosophers linguists can learn to talk, not so much about the meanings as abstract entities of some mysterious sort — but about the rules of usage that we must assume a speaker of a language to 'know' in order to account for his ability to use linguistic forms appropriately (pp. 274–274).

For some reason that I just cannot understand these correct insights have been to a large extent lost afterwards.

One last comment. In the 60's and 70's the methodological debate focused on the status of linguistic *intuition*. Without explanation, Chafe and Talmy have replaced 'intuition' by 'introspection'. Perhaps they have been thinking of what William James said some time ago: "The word introspection need hardly be defined — ..." (James 1890: 185). The argument of this paper shows, however, that on this issue James was mistaken. Introspection cannot be left undefined.

Consciousness Analyzed

In order to justify the thesis of this paper, I can think of no better starting point than Trubetzkoy's (1969 [1939]) structuralist phonology. By a careful process of elimination, Trubetzkoy arrives exactly at what I consider the right conclusion.

In phonology, *observation* or perception (of what goes on in space and time) cannot be the right method of knowledge-acquisition:

> The elements of the act of speech [*parole*] alone can be produced and *perceived*. The system of language [*langue*] is neither produced nor perceived. It must already be present and serves as a frame of reference for speaker and hearer (p. 12). The linguistic values of sounds are ... quite intangible things, which can be neither *perceived* nor studied with the aid of the sense of hearing or touch" (p. 13). The problems of phonology remain completely untouched [by biostatistical methods] because the system of language is outside the scope of 'measurement and number' (p. 8, emphasis added).

Nor can *introspection* be the right method. Any introspective or psychological method can find application only within phonetics, not within phonology. Linguistics is not psychology:

[O]riginally the phoneme was defined in psychologistic terms. J. Baudouin de Courtenay defined the phoneme as the 'psychic equivalent of the speech sound'. This definition was untenable ... The phoneme can thus be defined neither as 'sound image' nor as 'conscious sound image' and contrasted as such with the speech sound. The expression *Lautabsicht* (sound intent) was actually only a voluntaristic phrasing of the designation of the phoneme as 'sound image'. Consequently it was also wrong. ... All these psychological ways of expression fail to do justice to the nature of the phoneme and must therefore be rejected... [T]he phoneme ... is a linguistic and not a psychological concept (pp. 37–38). [A]nother definition could be given in which phonetics would be a purely phenomenalistic [*phänomenologisch*] study of speech sounds, with phonology pertaining to the linguistic function of the same sounds (p. 11). Phonology, of necessity, is concerned with the linguistic function of the sounds of language, while phonetics deals their phenomenalistic [*phänomenologisch*] aspects without regard to function (p. 12, emphasis added).

Why is it that both observation/perception and introspection are unsuitable methods for linguistic analysis? This is the answer:

Since the system of language [*Sprachgebilde*] consists of rules or *norms*, it is a system, or better, several partial systems, as compared with the act of speech [*Sprechakt*] (p. 3). [T]he objects of phonology [are] supra-individual *social values* (p. 9). The basis for this distinction [between phonology and phonetics] is that the system of language as a *social institution* constitutes a world of relations, functions, and values, the speech act, on the other hand, a world of empirical phenomena (p. 12, emphasis added).

While Trubetzkoy rules out observation/perception and introspection, he fails to give a name to that particular act of knowledge that applies to the 'social values' determined by the norms of a social institution. By now it has become evident that this act of knowledge is *intuition*. This was explicitly asserted in Itkonen (1981):

A cognitive act is necessarily subjective, its object may be intersubjective. A cognitive act cannot be defined without reference to its object. ... *Observation* pertains to things and events existing in the intersubjective spatiotemporal reality, which means that it is directly mediated by one of the five senses. ... *Introspection* pertains to subjective sensations caused mainly, but not exclusively, by spatiotemporal things and events. In other words, the object of introspection does not exist in an intersubjective reality ... *Intuition* pertains to concepts or rules existing in an intersubjective normative reality (pp.127–128, emphasis added).

Today my 1981 reference to 'sensations' as the objects of introspection strikes me as much too narrow, unless it is expressly stipulated that 'sensation' is meant to subsume intentions, propositional attitudes, emotions, mental images, and so on. Otherwise I still accept this tripartite structure of consciousness, in particular from the perspective of linguistic methodology. It is interesting to note that simultaneously with Itkonen (1981), Katz (1981, esp. pp. 194–196) postulated the existence of exactly the same three acts of knowledge (using 'perception' instead of 'observation').

What both Katz and I have been trying to do is establish a viable notion of *intuitional science*. Suggested by Pap (1958), this notion was first defined and exemplified in Itkonen (1978: Chaps. 10–11); see further Itkonen 2003 (Chaps. 14–17). In the light of the preceding quotations, it is clear that, having ruled out observation/perception and introspection, Trubetzkoy (1969 [1939]) too was endorsing

the notion of intuitional linguistics. He notes (p. 6) that the opposition to this notion is based on nothing but *Denkfaulheit*, or "laziness of thought". Four aspects stand out.

First, the evidence offered by the history of linguistics has been ignored. As documented in Itkonen (1991), grammatical traditions always and everywhere have been based on intuition, that is, on self-invented example sentences. The use of corpora of attested utterances has been either non-existent or incidental.

Second, the existence of other intuitional sciences (or disciplines) like (philosophical) logic and (analytical) philosophy has been ignored. When the only basis of comparison is constituted by natural sciences, intuitional linguistics (i.e. grammatical theory) is quite naturally — but wrongly — made to appear as a conceptual impossibility, or at least a methodological anomaly.

Third, the intuitions and their objects have been considered as divorced from spatiotemporality, thus forgetting that while norms (*langue*) and normative behavior (*parole*) are distinct from each other, they nevertheless mutually presuppose each other: "In all such cases the social institution per se must be strictly distinguished from the concrete acts in which it manifests itself and which would not be possible without it" (Trubetzkoy 1969 [1939]: 12). Although norms and behavior are conceptually interdependent, they are still ontologically dissimilar, as shown by the fact that the former are intuited while the latter is observed.

Fourth, and related to the previous point, intuitions and their objects have been depreciated because of their allegedly 'static' and 'disembodied' nature. This misunderstanding ensues from overlooking the fact that intuition is about norms, and norms are necessarily norms for *acting*, for instance, requesting, asking, and asserting. And such actions, encoded in imperative, interrogative, and declarative sentences, are in turn integral parts of *inter*actions. Thus intuition is inseparable from (inter)action. (Inter)actions are dynamic by definition, and cannot be performed by persons without bodies. Therefore intuition is both dynamic and embodied.

Katz endorses the idea of an exclusively intuitional linguistics. On this issue I disagree with him. I take it to be self-evident that such subdisciplines as (experimental) psycholinguistics and (observational) sociolinguistics are an integral part of any viable overall conception of linguistics; and I have taken great pains to show how, exactly, all these both ontologically and methodologically dissimilar aspects should be construed so as to constitute a coherent whole (cf. Itkonen 1983, 2002).

In any case, Katz's work has not received the recognition that it deserves. The reason must be his implausible commitment to Platonism. Pateman (1987: 52) notes, however, that "[t]he properties Katz assigns to [Platonist] abstract objects appear all to be possessed by the kind of conventions of mutual knowledge or belief that Esa Itkonen argues are constitutive of linguistic rules (Itkonen 1978; not cited by Katz 1981)." Reading Katz (1981) today helps to put Chafe's and Talmy's efforts in perspective.

In conclusion, it is now easy to see that what Chafe and Talmy are really trying to do with their notions of 'private observation' and 'introspection' is to redefine linguistics as a basically intuitional science. However welcome this endeavor may be as such, it is marred by the conceptual confusions that have been pinpointed above.

Intuition vs. Introspection

The distinction between intuition-cum-norm and introspection-cum-mental-content needs to be clarified. Norms are *inter*subjective entities, as is evident from the fact that breaking a norm is by definition a public event generally followed by some kind of sanction. By contrast, a mental image is a *subjective* or private entity, which entails that it is also non-normative. It is impossible to have incorrect mental images exactly because their occurrence fails to arouse 'public notice'.

Let us illustrate this difference. Suppose I utter a correct sentence like *That mountain range goes from Canada to Mexico.* Assuming that it is uttered under reasonably appropriate circumstances, everything goes smoothly because I have violated no norm. But suppose I utter an incorrect sentence like **That mountain range goes from Canada in Mexico.* Now I have violated a norm and cannot fail to get a sanction which may vary between a slight air of puzzlement on my interlocutor's face and an outright correction. Suppose, finally, that I utter an even more incorrect sentence like **That mountain range goes from Mexico to boy*. Now my interlocutor will be genuinely alarmed, and, if I have been joking, I will be sanctioned enough just trying to calm him down. If I have not been joking, my situation will look grim.

Things are quite different when we move to the domain of introspections and mental images. At the level of mental imagery, two opposite *fictive motions* are assumed to be connected with the (correct) sentences *That mountain range goes from Canada to Mexico* and *That mountain range goes from Mexico to Canada* (cf. Talmy 2000: 104). This is certainly a reasonable assumption. But suppose that, upon hearing or uttering one or both of these sentences, I fail to mentally perform the typical fictive motion. What happens? — Nothing. — Why? — Because no norm has been broken. — Why? — Because a norm cannot be broken without people realizing that it has been broken.

A few words of additional clarification may be in order. The foregoing must not be taken as denying the existence of mental images. On the contrary, both introspective and neurological evidence clearly shows that they exist. Between intuition and introspection, however, there is in linguistics a logical order of precedence such that use of introspection presupposes use of intuition, but not vice versa. It is thoroughly possible to practice ('structural' or 'logical') semantics without recourse to introspection. This is the semantic analogue of Trubetzkoy-type structural phonology. As the explanatory use of *empathy* will show, however, there is reason to transcend the limits of intuitional linguistics (cf. below). This happens *ex definitione* also in experimental psycholinguistics and observational-statistical sociolinguistics (again, see Itkonen 1983)..

Empathy = Vicarious Introspection

So far, we have seen that what intuition pertains to is a set of well-established norms, or "the inherited and *static* norms of a given state of language" (Trubetzkoy 1969 [1939]: 10, emphasis added). By the same token, whatever remains outside of such norms and is not a matter of observation/perception, is a *prima facie* candidate for being an object of introspection. Mental imagery has already been mentioned. Another such area is constituted by the processes of *learning* the norm or coming to *understand* those who

follow it.

In the pre-final section, I will argue that any attempt to explain 'alien' languages and cultures must be based on *empathy*. Preliminarily to it, I wish to propose a 'logical reconstruction' of the relation between introspection and empathy. Let us stipulate that the generic term 'feeling' applies to (the awareness of) beliefs, goals, emotions, and so on. (Thus, 'feeling' replaces 'sensation' of Itkonen 1981.) How do I arrive at empathy from what I introspect right now? In the following three steps:

i)   I now feel (or am capable of feeling) X $\Rightarrow$
ii)   I would have felt X if I had been in situation Y $\Rightarrow$
iii)   I would have felt X if I had been person Z in situation Y (= empathy, Weber-type *Verstehen*, Collingwood-type 're-enactment').

Typically, this is *not* the temporal order. Rather, it is only when confronted with person Z in situation Y that I become aware of my own capability of feeling X or what (I think) Z felt. I maintain, however, that this is the *logical* order. Let us add that all these transitions typically take place in a pre-existent social context (illuminated from several vantage points in Zlatev et al. 2008).

Intuition = Conventionalized Empathy

Let us stipulate that 'Y' and *X* stand for meaning and form, respectively. Next, I propose a logical reconstruction of the relation between introspection, empathy, and linguistic intuition. How do I arrive from introspection to intuition? In the following three steps:

i)   I *introspectively* know that right now I mean 'Y' by $X \Rightarrow$
ii)   I *empathically* know that also others can mean or have meant 'Y' by $X \Rightarrow$
iii)   I *intuitively* know that X means 'Y' (i.e. that one *ought* to mean 'Y' by X).

The move from "A means 'Y' by X" to "X means 'Y' " is significant because it amounts to a (schematic) account of the *emergence of* (linguistic) *normativity*. It follows that before the meaning 'Y' of X has become fully conventional, there is (and must be) a period when it is unclear whether 'Y' is (still) known introspectively ~ empathically or (already) intuitively. This just expresses the general nature of *linguistic change* or, more generally, of *conventionalization*. What I have done here is unfold the meaning of these two notions, and I have done so in terms of acts of knowledge rather than — what is much more common — in terms of objects of knowledge. Nobody denies the existence of linguistic change or of conventionalization, but not everybody seems to understand their true nature.

A few caveats are now in order. First, as demonstrated by Frege and Husserl among others, 'Ought' can be neither derived from nor reduced to 'Is' (cf. Itkonen 1991: 283–284). More particularly, I have myself shown the futility of any attempt to reduce either norms of language to (non-normative) 'hearer beliefs/expectations' (Itkonen 1978: 182–186) or conventional meanings to (non-normative) 'speaker intentions' (Itkonen

1983: 167–168). Therefore the emergence of normativity must contain a *leap*.

Second, the accounts given in this and the previous sections are deliberately schematic. More fine-grained stages and transitions can be postulated, and the psychological mechanisms involved remain to be filled in. I do claim, however, that at least these stages and transitions *must* be postulated, and exactly in the order introduced here.

Third, only the emergence of semantic norms was mentioned above, but analogous remarks apply to the emergence of syntactic and phonological norms.

Fourth, any account of the emergence of norms must be complemented by an account of their disintegration. This is what linguistic *change* means. Conceivably, all we need to do is reverse the order of the transitions.

Empathy as the Basis for Typological Explanations

Typological linguistics investigates the 'unity in diversity' displayed by the world's languages, and today it constitutes the framework within which the description of any single language must be carried out. How should one investigate the concept of 'explanation' in typological linguistics? However difficult it may be feel at first, one must learn to resist the temptation to borrow this notion from elsewhere, e.g. from such disciplines as Newtonian mechanics, Einsteinian relativity theory, quantum physics, evolutionary biology, chaos theory, or string theory. The right way to proceed is to observe what representatives of typological linguistics *themselves* mean by such expressions as 'explaining' or 'making understandable'. This, and this alone, guarantees a sufficient degree of *authenticity*.

Over the years I have extensively documented the use of such expressions in the typological literature. One of my standard examples is how Mithun (1988) explains why there are, cross-linguistically, so few examples of the *N-and-N* construction, exemplified e.g. *the man **and** the woman*. In what follows I shall considerably expand and elaborate her initial explanation (cf. also Itkonen 2005b: Ch. XI).

Speakers of languages like English or Finnish find it quite surprising, and nearly incomprehensible, that a language can lack the *N-and-N* construction. How should we explain this fact? To do so, we must first reconstruct the situation where the need for the *N-and-N* construction arises and then show how this situation can be handled without recourse to the *N-and-N* construction.

It is well-known that in spoken narrative personages are introduced one by one, by means of 'presentative' constructions. Let us assume that in a story told in some language L this has been done in the following way: "There was a man, he did X ...; there was a woman, she did Y ...". Next, the man and the woman have to be referred to together. If we were speakers of L confronted with this situation for the first time, which expression would we create for this purpose? Theoretically, we could of course choose *the man and the woman*. But we can achieve the same purpose more economically by choosing the third person plural pronoun *they*. And if speakers of L consistently cling to this strategy, L will *never* have an expression like *the man and the woman*. This is what the cross-linguistic evidence on this matter has taught us. (For those unacquainted with linguistic typology, it may be interesting to know that many languages also lack the sentential

connectives *and* and *or*; cf. Itkonen 2005a: 154–155).

The explanation that I just gave looks deceptively simple. But when it is spelled out, it turns out to be complicated enough. Notice that we have attributed to speakers of L such mental processes as *introducing* (names of) new referents into discourse and *re-identifying* them with an optimal combination of *efficiency* and *economy*. In order to grasp such processes and such efficiency vs. economy considerations, the only recourse that the linguist has is to rely on *empathy*, i.e. on his/her ability to *re-enact* those processes and those considerations (to use Collingwood's 1946 favorite expression). Speakers of L were confronted with a *problem* of choosing (what they believed to be) the best *means* of achieving their *goal* (here: re-identifying the previously introduced referents); and when the linguist recapitulates what speakers of L did, (s)he makes use of *rational explanation*, exactly in the sense of Itkonen (1983)

It is a very old idea that insofar as the "unconscious mind" exists, it needs to be structured on the *analogy* of the conscious mind:

> If a connection is admitted to exist between earlier and later acts of consciousness, the only viable option is to remain in the domain of the [unconscious] mental and to conceive of the mediation on the analogy of acts of consciousness (Paul 1975 [1880] 25; translation by E.I.).

> All these conscious acts ... fall into demonstrable connection if we interpolate between them the unconscious acts that we have inferred (Freud 1984 [1915]: 168). [A]ll the categories which we employ to describe conscious mental acts, such as ideas, purposes, resolutions, and so on, can be applied to [the latent states of mental life] (Freud 1984 [1915]: 168–170; for discussion, see Itkonen 2005a: 132–133, 224–225).

Accordingly, the use of empathy is based on the assumption that there is an analogy between the ("unconscious") goals-cum-beliefs that historical persons (e.g. speakers of L) entertained and those goals-cum-beliefs which the historian (or the linguist) *consciously* postulates as being those goals-cum-beliefs that he himself would have entertained if he had been in the same situation as the persons he is investigating. This method may seem unreliable but — I claim — there is no alternative to it. Notice also that, in the case of linguistic typology, there is a huge amount of cross-linguistic evidence (accumulated in the same 'unreliable' manner, to be sure) that guides us in hypothesizing about the goals-cum-beliefs in a certain situation; and the hypotheses may always be revised in the light of new evidence.

For the sake of completeness, let us consider another example. In Hua, a Papuan language of the Eastern Highlands of New Guinea, the aorist (or 'declarative') paradigm of the verb *do-* ('to eat') looks like follows, with the dual omitted (cf. Haiman 1980: 51; Itkonen 2005b: 59–60):

	SG	PL
1	do-e	do-**ne**
2	da-**ne**	da-e
3	de-e (> de)	-"-

From our 'Western' point of view, two facts cry out for explanation. First, why is

the 2PL form identical with the 3PL form? Second, why is the 2SG suffix identical with the 1PL suffix? (Both of these features recur in many Papuan languages.)

The first fact is explained by Foley (1986: 69) as follows: "It is the diffuseness and passivity of the second plural that associates it with the absent non-participants of the third person." Concerning the second fact, Foley (1986: 73) writes:

> A conflation motivated by the inclusive grouping [*I-and-you*] can be *explained* by its higher *salience* than the exclusive [*I-and-they*] ...; presumably a grouping of the primary speech act participants, speaker and addressee, would be regarded as *more important* by the speaker than a grouping of himself and some non-participants" (emphasis added).

There is nothing remarkable about these explanations; they merely illustrate the nuts-and-bolts activity of the typologist. The main thing is that they confirm my general thesis. Foley is practicing empathy or trying to figure out what speakers of Hua and of similar languages (unconsciously) find 'diffuse' or 'salient' or 'important'. He is making the same *hermeneutic* effort as any historian who, in Collingwood's (1946) words, is "rethinking people's thoughts" or, in Kuhn's (1979) words, is trying to "climb inside the heads of the members of a scientific community that existed in some earlier period".

Let us note, finally, that the same remarks apply to explaining facts of *grammaticalization*, e.g. to Paul's (1975 [1880]) by-now classical explanation, in terms of reanalysis and extension, of how the German demonstrative pronoun *das* became grammaticalized as the conjunction *dass*. The point is that we *reject* any proposed reanalysis and/or extension which is such that we cannot imagine performing them *ourselves*. This is confirmed by the fact, known to every student of grammaticalization, that when the change A > B seems incomprehensible, the first move is to try to postulate some intermediate stages C and D which are such that we can imagine performing ourselves each of the more specific changes A > C, C > D, and D > B.

At a rather high level of abstraction, the preceding account is supported by Givón (2005):

> A bio-organism's first imperative is to understand. That is, to explain — by abductive reasoning — why entities behave the way they do (p. 211). The scientist merely *recapitulates* the bio-organism ... (p. 204, emphasis added).

We achieve a vast generalization when we realize that there is a close analogy between Kuhn's admittedly hermeneutical effort to understand scientific communities of the past and Givón's effort to recapitulate bio-organisms. The typological linguist seems to occupy the middle ground between these two extremes.

Additional, and more direct, support is afforded by Croft's (2003) notion of typological explanation. He correctly notes that so-called implicational universals are clearly not enough (cf. Itkonen 1998). Therefore "deeper explanations" are needed, and these turn out to rest on such empathy-based notions as "cultural expectedness or salience" (Croft 2003: 115–116), "high salience and topicality" (pp. 178–179), and "cognitive salience" (pp. 181–183); for discussion, see Itkonen (2004).

Historical Note

There is a long tradition is Western philosophy which maintains that genuine knowledge is 'agent's knowledge' or our ('internal') knowledge of our own actions, and not 'observer's knowledge' or our ('external') knowledge of spatiotemporal events beyond our control. This tradition has been represented by Plato, Aristotle, Hobbes, Vico, Kant, Dilthey, Weber, Collingwood, and Schutz (cf. Itkonen 1978: 193–198, 2003: Chap. 11). Intuition qua knowledge of norms is a type of agent's knowledge by definition. Empathy as exemplified above is another (i.e. non-normative) type of agent's knowledge.

Conclusion

REFERENCES

Chafe, Wallace. 1994. Discourse, consciousness, and time. Chicago: The University of Chicago Press.

___. 2002. Putting grammaticalization in its place. I. Wischer & G. Diewald (eds.): New thoughts on grammaticalization. 395–412. Amsterdam: Benjamins.

Chomsky, Noam. 1975. Reflections on language. New York: Pantheon Books.

___. 1986. Knowledge of language. New York: Praeger.

Collingwood, R.G. 1946. The idea of history. Oxford: Clarendon Press.

Croft, William. 2003. Typology and universals, 2nd ed. Cambridge: Cambridge University Press.

Fillmore, Charles. 1971. Verbs of judging: An exercise in semantic description. C. Fillmore & T. Langendoen (eds.): Studies in linguistic semantics. 273–289. New York: Holt, Reinhart and Winston.

Foley, William. 1986. The Papuan languages of New Guinea. Cambridge: Cambridge University Press.

Freud, Sigmund. 1984 [1915]. The unconscious. On metapsychology: The theory of psychoanalysis. 167–210. The Pelican Freud Library, Vol. 11. Penguin Books.

Haiman, John. 1980. Hua: A Papuan language of the Eastern Highlands of New Guinea. Amsterdam: Benjamins.

Givón, T. 2005. Context as other minds. Amsterdam: Benjamins.

Hymes, Dell. 1964. Introduction. D. Hymes (ed.): Language in culture and society. New York: Harper & Row.

Hoyningen-Huene, Paul. 1993. Reconstructing scientific revolutions: Thomas S. Kuhn's philosophy of science. Chicago: The University of Chicago Press.

Itkonen, Esa. 1974. Linguistics and metascience. Studia Philosophica Turkuensia II.

___. 1978. Grammatical theory and metascience. Amsterdam: Benjamins.

___. 1981. The concept of linguistic intuition. F. Coulmas (ed.): A Festschrift for native speaker. The Hague: Mouton. 127–140.

___. 1983. Causality in linguistic theory. London: Croom Helm.

___. 1991. Universal history of linguistics: India, China, Arabia, Europe. Amsterdam: Benjamins.

___. 1996. Concerning the generative paradigm. Journal of Pragmatics 1996, 471–501.

___. 1997. The social ontology of linguistic meaning. SKY: The Yearbook of the Linguistic Association of Finland. 49–80.

___. 1998. Concerning the status of implicational universals. Sprachtypologie und Universalienforschung, 157–163.

___. 2002. Linguistics as a system of distinct types of ontology-cum-methodology. P. Gärdenfors et al. (eds.): In the scope of logic, methodology and philosophy of science. Dordrecht: Kluwer. 431–441.

___. 2003. What is language? A study in the philosophy of linguistics. University of Turku: Publications in General Linguistics 8.

___. 2004. Typological explanation and iconicity. Logos and Language. 21–33.

___. 2005a. Analogy as structure and process: Approaches in linguistics, cognitive psychology and philosophy of science. Amsterdam: Benjamins.

___. 2005b. Ten non-European languages: An aid to the typologist. University of Turku: Publications in General Linguistics 9.

Jackendoff, Ray. 2002. Foundations of language. Oxford: Oxford University Press.

James, William. 1890. The principles of psychology. New York: Henry Holt.

Katz, Jerrold. 1981. Language and other abstract objects. Oxford: Blackwell.

Kuhn, Thomas. 1979. History of science. P.D. Asquith & H. E. Kyburg (eds.): Current research in philosophy of science. 121–128. Ann Arbor: Edwards.

Mithun, Marianne. 1988. The grammaticization of coordination. J. Haiman & S.Thompson (eds.): Clause combining in grammar and discourse. 331–359. Amsterdam: Benjamins.

Pap, Arthur. 1958. Semantics and necessary truth. New Haven: Yale University Press.

Pateman, Trevor. 1987. Language in mind and language in society. Oxford: Clarendon Press.

Paul, Hermann. 1975 [1880]. Prinzipien der Sprachgeschichte Tübingen: Niemeyer.

de Saussure, Ferdinand. 1966 [1916]. Course in general linguistics. Translated by Wade Baskin. New York: McGraw-Hill.

Talmy, Leonard. 2000.Toward a cognitive semantics, Vol. I. Cambridge, Mass.: The MIT Press.

___. 2007. Introspection as a methodology in linguistics. Paper distributed at ICLC X, Cracow, July 2007.

Trubetzkoy, N.S. 1969 [1939]. Principles of phonology. Translated by Christiane A.M. Baltaxe. Berkeley and Los Angeles: University of California Press.

Zlatev, Jordan. 2007. Phenomenology and cognitive linguistics (ms.)

___, Tim Racine, Chris Sinha, and Esa Itkonen (eds.) 2008. The shared mind: Perspectives on intersubjectivity. Amsterdam: Benjamins.