

A THEORY OF BARGAINS IN EXPERIENCE

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1. Introduction

In the science of cognition, as in many other sciences, it is often assumed that the biggest problem of cognition is the lack, loss or distortion of information. Were it not for human limitations in information processing capacity, cognition would not be worth studying. Much of our cognitive development in childhood seems to be geared to mastering the distinction between *appearance and reality* (see Flavell, 1985), and once the necessary cognitive and intersubjective skills for this mastery are developed, they support the view that problems of cognition are problems of lack, loss or distortion of information (i.e. reality). It would be foolish to deny the importance of these limitations. But there is also another side to the coin: that certain kinds of experience owe their existence to the fact that the human cognitive capacities are limited. In this paper, I will present a theory of experience that fully acknowledges this seeming paradox and I will elaborate some consequences for philosophy that seem quite important to me¹. Philosophically, the paper is driven by two related ideas: that of complementarity (see Lindenberg & Oppenheim, 1974) and that of bargain situations (see Lindenberg & Oppenheim, 1978).

The idea of complementarity in micro-physics is quite different from the appearance/reality dichotomy because it introduces the possibility that the phenomenon in question, to say it crudely, is jointly produced by observed and observer. For the same reason, consideration of complementarity encourages a view of experience that highlights the interaction between the process of experience (the instrument) and the experience itself. This interaction will be one of the two main topics of this paper, although it will not be further analyzed in terms of complementarity.

Bargain situations emphasize the fact that in most cases one cannot have the cake and eat it too, that every good has its price. In the realm of experience as in many other areas of philosophical investigation, this seemingly simple fact is frequently neglected with rather unfortunate consequences. The second main topic of this paper is therefore the discussion of experience as bargain situations, with some examples from philosophical analysis in which these situations are not acknowledged. Both complementarity and bargain situations thus call first for a closer attention to the different ways the instrument of the experiential process interacts with the experience,

and second for a closer look at the various tradeoffs that confront the experiencer. Both of these points have been overshadowed by the idea that experience should basically be projected onto a dimension of altered states of consciousness which runs from primary process consciousness to secondary process consciousness. This dimension basically runs from the irrational to the rational, from the childlike to the adult, from the schizophrenic to the normal, from the primitive to the developed (see Martindale, 1981). The present article is meant as a confrontation with and against this view.

2. A process model of experience

There are many different theories of cognitive processing that could be relevant for our purposes. However, even though there are considerable difference between the theories, there seems to be a growing consensus that the most important components of cognitive processing are "schemas", bundles of stored information, which contain stereotypical structures of scenes (such as "sky above and earth below"), of expected sequences (such as word order or a typical sequence of courses during supper), and also of practiced sequences of internal or external action. In the following, I will make use of the elaborations of Norman and Shallice (1986) on the workings of schemas, but the use of cognitive theory in this paper is much too rough to make it mandatory or even desirable to be much concerned with its details and surrounding controversies. This necessitates that some injustice is done to the subtleties of frames, scripts and schemas and to controversies within cognitive psychology itself.

A schema can only influence your experience² (and your action) if it is activated. Activation can come about mainly in two ways. First of all, it is initiated by a match of perceived environmental conditions and certain trigger specifications. Secondly, it can be activated by another schema. Thus, when you detect a police car on the highway, it might trigger the "keep to traffic rules" schema, which in turn will activate subschemas, such as the one that will make you slow down or the one that will make you move over to the right side or the one that will make you increase the distance from the car in front of you. Schemas thus have a hierarchical structure. The "keep to traffic rules" is a master schema in this case, activating laterally subordinate schemas (which, in turn are likely to activate still lower order schemas, such as using the clutch and changing gears etc.).

However, there are two important extra ways by which the influence of a schema is affected:

a. if there is a conflict between schemas (due to the fact that they need the same resources or that they contradict each other) b. if a task is novel or complex, there maybe no schema readily available. Let us look at both in order. When schemas vie for the same resources or contradict each other, they are obviously in competition and the one with the higher activation level will win out. Norman and Shallice call this competitive process *contention scheduling*, which "resolves competition for

selection, preventing competitive use of common or related structures, and negotiating cooperative, shared use of common structures or operations when that is possible" (op.cit., p.5) Thus, if you are in a great hurry, "getting to X in time" may compete with "keeping to the traffic rules". Each might activate subschemas that contradict the subschemas of the other. If "keeping to the traffic rules" has a higher activation level, it will win out. If there are conflicting subschemas activated by the same master schema, the subschemas are competing, and again, the more highly activated one will laterally inhibit the other³.

Which one of the two master schemas has a higher level of activation will also be influenced by *motivational factors*, such as the consequences of being late at your destination or fear of being caught. For example, at first, the "keeping to the traffic rules" schema may prevail and you slow down when you see the police car but then the consequences of being late may increase the activation level of "getting to X in time", making you speed up again.

When there is no schema readily available or when the competition among schemas does not lead to the desired results, then the *supervisory attentional system* can interfere by extra activation or inhibition of schemas. Whether the supervisory attentional system will interfere depends also on a mandated decision beforehand⁴. The process of experience just described can be seen schematically represented in Figure 1.

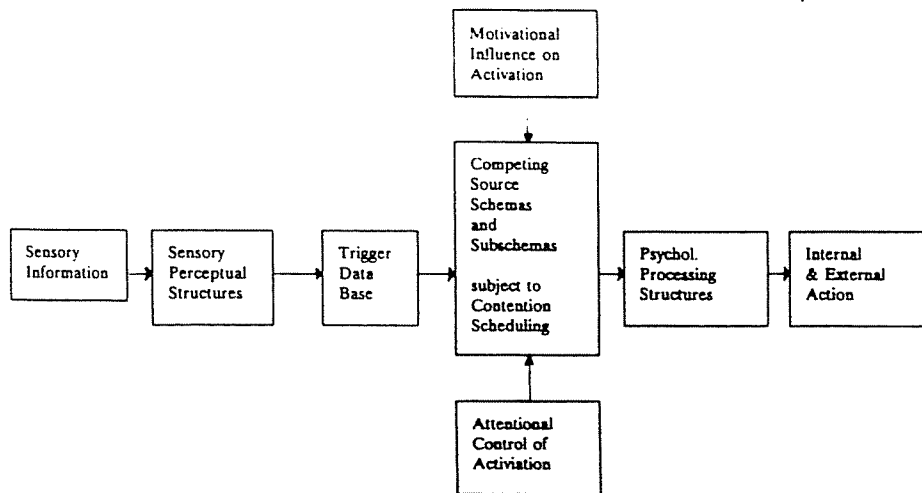


Figure 1. The Process Model of Experience

3. Process dimensions of experience

As a consequence of this model, we can assign different process dimensions to experience itself. In other words, the nature of the experiential process differs depending on what happens during the process, irrespective of any particular features of the stimulus material itself.

3.1. SCHEMA-SELECTIVITY

As we have seen, schemas can come into conflict with one another because they may require the same resources or contradict each other. There is however a way in which different schemas can "slip through" the contention scheduling: if motor response is inhibited (for example by generally low levels of activation, see Shallice, 1978). Much of the common resources and most of the conflicting commands of different schemas pertain to motor responses, so that if they are inhibited, the contention scheduling will be much less selective.

3.2. ATTENTIONAL CONTROL

The Supervisory Attentional System can interfere in what would otherwise be an "automatic" process by changing levels of activation. Attention can thus bring to bear schemas that would have otherwise been inhibited in the contention scheduling process or inhibit those that had been "let through" this process. In the absence of attentional control, "capture errors" can occur, such as inadvertently putting on one's rubber boots when passing through the back porch on the way to get to one's car.

3.3. VERBALIZATION

The experiential process may or may not be accompanied by the activation of a verbalization schema. Either nothing, or little or much is "categorized" by inner (or overt) speech. Neisser (1967) has given special attention to this kind of coding, and I will follow him here. The stimulus material sets certain limits within which verbalization is possible (cf. Neisser, 1967: 43f), but within these limits, verbalization depends on the experiencer (with or without deliberate control). Verbalization is significant for various reasons. First of all, it introduces the linguistic form which is always in an auditory medium, no matter what the nature of the stimulus material. Second, it converts the experienced content into active verbal memory where "it is more easily available for use in later descriptions." (Neisser, 1967: 301). Third, although verbalization saves information from oblivion, it may also take time away from coding it in its original non-linguistic medium and thereby shorten or interrupt active construction. Fourth, the act of synthesis generally involves a reduction of information contained in the stimulus material. But verbalization necessitates an additional and probably even stronger reduction, since the grain of linguistic categories is necessarily coarser than that of non-linguistic constructions. Verbalization sacrifices a good deal

of information contained in the particular synthesis and involves a commitment to particular reductions. All five aspects, I argue, are important for the resulting experience.

3.4. EMOTIONAL ACTIVATION

Finally, the motivational influence of activation can leave more or less room for emotions. Emotional influence on the activation level of source schemas competes with non-emotional influences (such as long-term consequences for action). For instance, it is said that a good deal of training for a physician is spent on teaching him to code patients rigidly within the medical framework rather than shifting to other, more personal, codings.

In sum, I propose four process dimensions of experience: the degree of schema-selectivity, the degree of attentional control, the degree of verbalization, and the degree of emotional activation. The metric of these process dimensions is rough; it can only be talked about in terms of "more or less". But for my purpose this is quite sufficient. More important is the question whether the process dimensions are independent of each other. Conceptually, they are independent; and I have no reason to assume that they are physiologically dependent (at least after adequate training). However, culturally, their independence may be severely reduced. While it would make for an interesting topic to study cross-culturally the different interdependences of the process dimensions of experience, I will not be concerned with this question⁵. I do not claim that these four process dimensions are the only possible process dimensions of experience. For instance, there are dimensions that pertain to substantive aspects of the stimulus material, the experiencer's reactions etc. All these are purposefully excluded from the discussion, since they do not solely depend on the process of experience. Among the possible process dimensions of experience, the four dimensions described are certainly crucial to "modes" of experience, to which we now turn.

4. Modes of experience

Often, experiential episodes that are deemed worth talking about are labeled in terms of their emotional intensity. "This was a terrifying experience", is a typical comment, or "this experience was marvelous". It may be true that the more intense the emotion during the episode, the more likely it is talked about. This does not mean that emotional intensity is the subjectively most important and objectively most consequential aspect of experience. Other, less dramatic aspects often lack labels but are even more important and consequential than emotional intensity. Let us take as an example the experience of the eruption of a volcano by a mystic as compared to a scientist. They differ greatly in their objective⁶ aspects. The scientist will be able to give (to himself and others) an account adequate to his experience; he will have not allowed himself losing detachment; his observations will have been systematic,

distinguishing, say, the incandescent dust from its surrounding vapor; and he will recollect having had deliberate control of the experience. The mystic, on the other hand, will tell us that nothing can describe this event adequately; that he does not recollect any detachment or deliberate control. In fact he may find all these aspects utterly irrelevant or simply deplore that he cannot relate his experience. The two episodes also differ greatly with regard to subjective⁷ aspects as revealed in recall. The mystic may speak of "unspeakable immediacy", a "sense of resonance"; a situation in which "impression after impression flowed into one indistinguishable whirl of experience"; a situation, in which the experience was a continuous flow. The scientist will not recall any of these impressions. He will either have no subjective recollections altogether, or he may remember that he had to "force himself to describe rather than gaze", and recollect the difficulty he had to "keep a distance and firm observational standards", to "remain systematic in his observation" and "not to let everything flow together into one spectacle of flaming fury"⁸. With regard to objective aspects, the scientist outscored the mystic; but with regard to subjective aspects the mystic outscored the scientist. This is not quite the same as saying, in a familiar mold, that one was rational and the other intuitive. The differences are of a finer grain. What, for instance, would have been the experience of a journalist or even an introspective psychologist? "Rational versus intuitive" does not provide enough dimensions to accommodate all these differences, just as the distinction of "primary versus secondary process consciousness", mentioned above, allows too little differentiation.

4.1. OBJECTIVE AND SUBJECTIVE MODES OF EXPERIENCE

For lack of a better term, I call objective and subjective aspects of experience and their various combinations "modes of experience". The more popular term 'cognitive styles' does not cover subjective impressions, and it is mostly used to distinguish between persons, while modes of experience can vary greatly for one person at different times.

The important substantive claim I would like to submit is that modes of experience depend on process dimensions of experience. But since they also depend on stimulus material, expectations, etc., process dimensions of experience are only necessary and not sufficient conditions for modes of experience. In order to flesh out this assertion, I choose four objective and four subjective modes which seem particularly important to me⁹. Many of them have also been singled out in philosophy and psychology as

worth considerable attention. They are:

MODES OF EXPERIENCE

<u>objective</u>	<u>subjective</u>
accountable	immediate
detached	resonating
systematic	comprehensive
deliberate	continuous

Each of these modes of experience warrants a brief explication, since the labels are quite arbitrary.

The *objective* modes. "Accountable" characterizes an experiential episode to the degree that it can be verbally communicated to oneself or others without loss: the communication does not distort and fully covers the episode. "Detached" characterizes an experiential episode to the degree that the experience is unemotional. "Systematic" characterizes an experiential episode to the degree to which the experiencer is aware of a meaningful sequence of experiential episodes. "Deliberate" characterizes an experiential episode to degree to which the experiencer is aware of deliberately guiding his experiential episodes.

The *subjective* modes cannot be explicated by performance aspects and are thus more elusive¹⁰. Yet, under many different names they have been described in poetry and literature as those modes of experience "that make life worth living". "Immediate" characterizes an experiential episode to the degree to which the experiencer recalls having had "direct access" to the content of the episode. Sometimes, this mode is referred to as providing "the given", or "brute facts" (William James) or "raw feels" (Feigl) or "essence" (Husserl). "Resonating" characterizes an experiential episode to the degree to which the experiencer recalls the impression of intimate response to the object of experience, as if resonating with the experienced. Certain subforms of this mode are known under the name of "empathy" and "communing". "Comprehensive" characterizes an experiential episode to the degree to which the experiencer recalls the impression that he or she experienced everything at a glance, everything simultaneously. "Continuous" finally, characterizes an experiential episode to the degree to which the experiencer recalls the impression of a continuous flow of experience.

4.2. MODES AND PROCESS DIMENSIONS OF EXPERIENCE

I now argue that each one of these modes of experience is dependent on one of the process dimensions of experience as a necessary condition. For the *objective* modes, this link is very obvious. Thus "accountable" depends on verbalization, "detached" depends on the lack of emotional influence on activation, "systematic" depends on

schema selectivity, and "deliberate" depends on attentional control. For the latter three modes, it is also obvious that there is no way in which the characteristic of the experience can be provided after the fact. With "accountable" this point may be less obvious, and I will therefore give it some more attention.

Accountable experience. Without verbalization during the experiential episode no reduction to a linguistic structure takes place. And without this reduction no firm commitment as to the identity of the constructions is made and some items may be completely lost. But even if nothing is lost, if recall can completely "re-construct" the experience, linguistic reduction would render the verbal account distorting or incomplete, since this reduction was not part of the original experience. It introduces commitments now that were not made then, hence the account is not "adequate". This is more than splitting a hair over the timing of verbalization. The degrees of freedom introduced by post hoc verbalization are considerable, since in all but trivial cases it is impossible to say whether the same categorical commitments would have been made during the original experience. Situation, coding patterns, expectations etc. may be very different now from what they were then.

Subjective modes of experience are not so obviously related to particular process dimensions. Let us briefly look at each one (with "immediate" at the end). The feeling of "being in touch" with the experienced, of *resonating* with it, is not restricted to other human beings but can also occur with an animal, a piece of art, or some other object. It necessitates an influence on the activation of schemas that is not just very responsive to changes in perceived inputs (as in a fencing dual). The influence on activation must also be responsive to things that are not perceived (such as personality traits and inner states of persons), or perceived but not physically changing (as the color in a painting). This kind of influence cannot be driven by a trigger data base or by attentional control; it must be driven by emotional control on schema activation. There is nothing in the idea of "resonating" as such that presupposes emotions, but the experiential process allows of no other way to produce it.

Meaningfully connected sequences of experiential episodes presuppose empirically high selectivity of schemas with regard to purpose and coherence. When the contention scheduling is very permissive, letting many (low activation) schemas become operational at the same time, no systematic experience is possible. On the other hand, the experience of "everything at a glance" depends on the simultaneous activation of schemas that are otherwise not experienced together. Indeed, a *comprehensive* experience is not likely to be the "normal" mode because it depends on a suppression of motor responses. But this does not mean that it cannot occur routinely, as when listening to music or reading a book.

Experience and action can be quite automatic unless consciously attended to. The deliberate, willful experience must therefore depend on the interruption of the automatic process by deliberate intervention in the activation level of schemas. The recollection of a *continuous* flow of experience is logically quite compatible with a

willful guidance of that flow. However, empirically the deliberate guidance depends on the intervention of the automatic processing, on an "interrupt" that brings about changes in the level of activation of schemas. Willful guidance is thus not compatible with the recollection of a continuous flow in experience.

Immediacy or direct access refer to qualities of the experience, not to any philosophical position on a directly accessed reality. The amount of reduction of information occurring during non-verbal processing is normally not open to introspection. The only reduction accessible to introspection is the one due to verbal categorization (and even that may take some training). Assuming that "direct access" refers to the apparent lack of reduction, it must depend on the absence of verbal categorization. In addition, lack of categorization allows in many cases prolonged coding in the original medium, thereby heightening the impression that no reduction has occurred or even that one is confronted with the "essence" of the content of experience.

5. The bargain principle of experience

As I have just argued, pairs of objective and subjective modes of experience depend, respectively, on the same process dimension of experience. Table 1 summarizes these results.

Table 1. Limitations of modes of experience

If this objective mode of experience is maximized then	this subjective mode of experience is minimized and vice versa	because both depend on opp. poles of this dimension
accountable	immediate and vice-versa	degree of verbalization
detached	resonating and vice-versa	degree of emotional control
systematic	comprehensive and vice-versa	degree of schema-selectivity

If this objective mode of experience is maximized then	this subjective mode of experience is minimized and vice versa	because both depend on opp. poles of this dimension
=====		
deliberate	continious and vice-versa	degree of attentional control

While in each process dimension the objective and subjective modes are logically compatible, they are inversely related empirically. If this is correct, then the all-encompassing experience that maximizes all objective and subjective modes simultaneously does not exist. Each experiential episode can realize only four modes at the expense of four other modes. Successive realization of the eight modes of experience does not mitigate the limitation. For instance, an immediate and (later) accountable experience of the same piece of music does not create a jointly immediate and accountable experience of the piece of music. There is no independent "piecing together" of different experiential episodes. No matter what the nature of the recalled episodes, their combination takes place in one or another mode of experience, say, immediate or accountable, but not both.

Since the all-encompassing experience is not a viable alternative, each experiential episode can be characterized by a pattern of advantages and disadvantages, i.e. by a bargain situation. The concept of "bargains" (in the sense of tradeoffs) was introduced by Lindenberg and Oppenheim (1978). Let us call two desiderata for a person "negatively conjugate" if one desideratum can only be had at the expense of the other or if an increase in one is always accompanied by a decrease in the other. Then a bargain situation obtains when a person is confronted with alternatives each of which offers only negatively conjugate desiderata. The *Bargain Principle* says: *assume that any particular pair of your desiderata is negatively conjugate and thus creates a Bargain Situation, unless it is empirically or logically established that the pair is not (or only positively) conjugate.*

The likelihood that the pairs of objective and subjective modes of experience are not negatively conjugate is rather slim and the Bargain Principle is directly applicable to experience. The existence of bargain situations does not mean that the non-realized mode(s) is (are) to be considered as valuable as the realized mode(s). If both are of equal value to the experiencer at a particular time, his bargain situation is truly a dilemma. But if they are of unequal value, value is lost, no matter what alternative is being chosen. The important point is whether thought and action reflect acknowledgement of this limitation, irrespective of any gradations in evaluation. Before I move on to illustrations of violations of the Bargain Principle, it should be noted

that alternatives in bargain situations always come in pairs since any negative conjugation can be inverted. In Figure 2 a situation of two dichotomous negatively conjugate desiderata is shown.

Figure 2. A Bargain situation

Alternative 1	Alternative 2
A (advantage) and not B (disadvantage)	B (advantage) and not A (disadvantage)

In the literature, such a bargain situation is often described solely by the positive element in each bargain, such as "rational versus intuitive", meaning "rational but not intuitive" (alternative 1) and "intuitive but not rational" (alternative 2). While the short-hand expression of a bargain situation with the help of "versus" is convenient, it perhaps does not convey sufficiently that both alternatives contain disadvantages even if both desiderata are not equally valued. Instead, the short-hand expression encourages the view that one is simply confronted with making the "right" choice, preferably between one superior and one inferior alternative; therefore, limitations are easily neglected and not "taken into the bargain". It is this situation that the Bargain Principle is meant to correct. It is, of course, possible that in a bargain situation where choice is possible, one choice is "right" at a certain moment, but even the best choice is a bargain, containing a price to be paid.

6. Examples of bargain situations in experience

6.1. PURELY OBJECTIVE AND SUBJECTIVE EXPERIENCE

The most extreme bargain situation possible with regard to our eight modes of experience consists in maximizing all objective modes limited by minimizing all subjective modes, and vice-versa. For the sake of discussing these and other examples, we will treat the maximum and minimum of a mode of experience as dichotomies. While this measure does harm to the consideration of innumerable shadings of experiential episodes, it allowed explicit illustrations of bargain situations and brings the limitations into greater relief.

In the language of dichotomies, then, the first extreme alternative is an experiential episode that is accountable, detached, systematic and deliberate, limited by the loss of the immediate, resonating, comprehensive and continuous modes. This episode maximizes all four objective modes. It can be communicated without incompleteness

and distortion; its coding standards are known; its sequence is meaningful; and its content consciously controlled. In all likelihood, this is what is normally meant by a "purely rational" episode or "Erkennen" (the untranslatable German word, approximated in English by "veridical cognition"). The second extreme alternative consists of an experiential episode that is immediate, resonating, comprehensive and continuous, limited by the loss of the accountable, detached, systematic, and deliberate modes. This episode maximizes all four subjective modes. It warrants direct access of the experiencer to the content of experience; it maintains an intimate resonance of the experiencer with the content of experience; it is comprehensive; and the experiencer is given to a continuous flow of experience. In all likelihood, this is normally meant by a "purely intuitive" episode or "Erleben" (the untranslatable German word, approximated in English by "living through"). In Western literature, these extreme types (or contrasting parts of these extreme types, such as accountable versus immediate, or detached versus resonating) are often found. The work on altered states of consciousness that projects experience into one dimension from primary process consciousness to secondary process consciousness is also tied to these extreme types. By separating different process dimensions of experience, it is possible to reconstruct these popular types but, at the same time, it is possible a) to show their complex internal structure; b) to point to the ease with which they could turn into another pattern; and c) to show up their limitations. This paper hopefully helps in creating a common language for the clarification of prominent experiential bargain situations, for comparing them, and for showing where they can be constructively criticized. The remainder of this paper will be devoted to illustrative applications. Purposefully, I have chosen some stock examples that keep coming up in the discussions of experience.

6.1.1. *Weyl's Philosophy of fundamental bargain situations.* My first illustration comes from Herman Weyl who inspired us to speak of "bargains" of experience. In his *Philosophy of Mathematics and Natural Science* (1949), he describes an experiential bargain situation thus: The immediate experience is subjective and absolute. However hazy it may be, it is given in its very haziness thus and not otherwise. The objective world, on the other hand, with which we reckon continually in our daily lives and which the natural sciences attempt to crystallize by methods representing the consistent development of those criteria by which we experience reality in our natural everyday attitude - this objective world is of necessity relative; it can be represented by definite things (numbers or other symbols) only after a system of coordinates has been arbitrarily carried into the world. It seemed to Weyl that this pair of opposites, subjective/absolute and objective/relative, contains one of the most fundamental epistemological insights which can be gleaned from science. Whoever desires the absolute must take the subjectivity into the bargain; whoever feels drawn toward the objective faces the problem of relativity (Weyl, 1949, p.116).

In short, Weyl's bargain situation is: absoluteness at the price of subjectivity, and objectivity at the price of relativity. Two translations of this pair of bargains into the language of this paper are possible. The first is direct, the second is indirect and interpretive. What Weyl calls "absolute" can be directly translated as "immediate", as

his first sentence suggests. What he calls "objective" can be directly translated as "accountable", since he refers to representation by numbers and other symbols. "Subjective" and "relative" are simply the negations of "objective" and "absolute", respectively and can thus in turn be translated as "non-accountable" and "non-immediate". In this direct translation, Weyl's bargain situation refers to the fact that one cannot have both the experience of "absolutes" (immediate experience) and the ability to give an adequate account of it (accountable experience). Whoever desires one, has to take the loss of the other into the bargain. But why does Weyl insist that this is the most fundamental insight that can be gleaned from *science*? Normally, this insight is encountered in defence of value of ineffable experience of mysticism. Weyl's point seems to be more radical than that.

Translated into the language of this paper, Weyl seems to say: objectivity is an experiential mode of construction, and it is so radically different from the subjective experiential mode of the given, that no quality of the latter may be attributed to the former. Recounting the history of science (physics), Weyl maintains that progress has been made to the degree that qualities of subjective experience have been removed from the construction of the objective world. Time and space as absolutes belong to subjective experience; every system of coordinates is constructed, including time and space; objective theory can only be built on the basis of systems of coordinates; therefore, objective theory cannot contain absolutes. In Weyl's view, only Einstein's theory of relativity achieved this insight and emancipated physics from the experiential confusion about absolutes. Thus, Weyl's bargain situation is gleaned from science and not from mysticism (see also Born, 1949 and Butterfield, 1957). Acknowledging that qualities of one mode of experience cannot be preserved in every other mode of experience, is the heart of the Bargain Principle; and it implies the impossibility of a radical empiricism in which immediate experience would be the absolute basis of objective science. Yet, Weyl's account is still very much indebted to philosophical traditions (e.g. idealism and realism, cf. Weyl, 1949, pp. 116f) that are not based on a cognitive process model of experience. For him, the "subjective" is the "given", sometimes in terms of sense data, sometimes in terms of naive realism. In both senses of the term "given", Weyl underrates the constructive element in subjective modes and leaves these modes essentially unexplored. For him, immediate, resonating, comprehensive, and continuous modes of experience would all merge to a single subjective mode of "the given" with one summary quality: absolute. Conversely, one objective mode, "the constructed", fuses the accountable, detached, systematic and deliberate modes of experience into a single mode with one summary quality: relative. As a consequence, Weyl does not only underestimate the complexity of objective and subjective modes, he is also unable to conceive of experiential episodes that combine some objective with some subjective mode, serving as "bridge episodes" between the purely objective and the purely subjective (see below). Instead, he makes a halfhearted bow to Heidegger, saying that "being-in-the-world", as an existential mode of being, "is the *conditio sine qua non* for cognition and knowledge" since it bridges subject and object (Weyl, 1949, p.430).

6.1.2. *Informativeness*. My second illustration is related to Weyl's bargain situation. Time and again, we read that certain experiential episodes are "ineffable". In our translation this means that since no verbalization is going on during an immediate experience, post hoc verbalization is distorting and incomplete at least for the following reasons: there is no active verbal memory to draw on and reduction of recalled information to a linguistic medium takes place in a different experiential context (see above). "Ineffable" in this sense refers solely to this distortion and incompleteness of post hoc verbalization. However, even if an experiential episode is fully accountable, it may not be every informative. The degree of informativeness of an experiential account depends on many substantive aspects of experience, such as the nature of the stimulus material, the nature of available coding patterns etc. These aspects are purposefully neglected in this paper. Yet, informativeness also depends on modes of experience. For example, if an episode is continuous rather than deliberate, any account of it would lack any basis for estimating the chance that capture errors were committed. Inspecting the experiential modes under this aspect of informativeness, we find that only objective modes exert positive constraints on the information of accounts, while subjective modes exert only negative constraints. An accountable episode creates commitments to particular linguistic reductions of information, while an immediate episode lacks these commitments. A detached episode bases the processing of information on definite coding standards, while a resonating episode lacks these definite standards. A systematic episode imposes a definite sequence on the information, while a comprehensive episode lacks this sequence. Finally, a deliberate episode guards against capture errors, while a continuous episode does not. In short, with regard to information conveyed in accounts, objective modes create a definite structure while subjective modes are characterized by the lack of a definite structure. Under the reasonable assumption that information that lacks definite structure is also less informative we can say: the more objective modes are maximized in an experiential episode, the more informative any possible account of this episode; and the more subjective modes are maximized in an experiential episode, the less informative any possible account of this episode. The bargain situation in this case is clearly between subjective impressions during the episode and informativeness of an account after the episode. This conveys a broader meaning of "ineffable" than the ordinary understanding of this term, and it highlights the meaning of "objective versus subjective". It also follows, that an informative account of an episode that is claimed to be purely subjective (e.g. a revelation) is likely to be a reconstruction that draws post hoc from many other sources than the particular episode. Not to acknowledge the bargain situation between subjective impressions and informativeness violates the Bargain Principle.

6.1.3. *Buber's I and Thou*. My next example is Buber's *I and Thou* (1958). This book is written like a poem, or "vision" as he calls it, and it is difficult to extract any precise meaning from the terms he uses. Yet, Buber commits himself enough in order for us to attempt a justifiable translation and critique. He describes the I-Thou relationship as the world of "presence" which exists only so far "as presentness, meeting, and relationship exist". This is contrasted with the world of the object in which the I-It

relation holds away. The world of the object, in turn, is characterized by "experience (of objects) and use (of objects)". Presentness, meeting and relationship or, taken together, the "solidarity of connexion", all point to the resonating mode of experience which was described above as intimate, interactive, personal relationship to the content of experience. In addition, the I-Thou relationship is immediate: "the relationship to the Thou is direct", "no system of ideas, no foreknowledge, and no fancy intervene between I and Thou". Therefore it is not accountable: "every word would falsify", "only silence before the Thou - silence of all tongues ... leaves the Thou free, and permits man to take his stand with it ..." (op. cit. p.39). Buber also stresses that the I-Thou relationship is a comprehensive mode experience: "you look at the world-order fully present", or "fusion into the whole", as he calls it. No boundaries are recognized: "Thou has no bound" and "everything else can be only the background out of which it emerges, not its boundary and measured limit", everything is "indivisibly united in this event". Consequently, the systematic mode of experience is alien to the I-Thou relationship: "only It can be arranged in order ... The Thou knows no system of co-ordination". Finally, Buber also attaches the continuous mode to the I-Thou relationship: "it comes when it is not summoned...", when no deliberate attention is attempting to steer the experience.

In short, the I-Thou relationship is described, in a beautiful poetic way, as the extreme subjective experience, maximizing the resonating, immediate, comprehensive and continuous modes. By contrast, the I-It relation, the world of experience of objects and use of objects, is a residual category. This world comprises everything not contained in the I-Thou relationship. For Buber, it is the world of objectivity, knowledge, causality, separation, detachment, values, aesthetics, etc. It is whatever appears when the I-Thou relationship has ceased (and it is bound to cease). "The It is the eternal chrysalis, the Thou the eternal butterfly - except that situations do not always follow one another in clear succession". The It is a necessary evil, and "if man lets it have the mastery, the continually growing world of It overruns him ...".

Buber sets up part of a bargain situation: "the development of the ability to experience and use (I-It) comes about mostly through the decrease of man's power to enter into (I-Thou) relationship". Thus, whoever wants to develop this I-It ability has to take a decrease in his ability to enter the I-Thou relationship into the bargain. As so many other philosophers, he violates the Bargain Principle by leaving out the other side of the bargain situation. He declines to say what would happen to whoever wants the I-Thou relationship. Instead, he says that this development would lead to a "true community", without paying much attention to the world of the It in this community. In fact, by leaving every objective mode of experience unexamined, he is unable to describe a bargain situation. For him, there are seemingly two kinds of desiderata: necessities and "good" points, and necessities can remain unexamined. The wide-spread appeal of his book is undoubtedly related to its beautiful devoted language, but it may also be due to a considerable degree to the Manichean escape from bargain situations, offered in this vision.

6.1.4. *Maslow's Being-Cognition.* Buber's I-Thou is such an influential book in the area of experience that it seems worth-while to follow up one prominent elaboration of I-Thou, in Maslow's (1962) work. Maslow, still widely read today, bases his approach on a motivational bargain situation: on the one hand safety but not growth, on the other hand growth but no safety. For instance: growth of the personality necessitates venturing into the unfamiliar, while safety (security) of the personality depends on the familiar. Both safety and growth have their anxieties and delight, but they are mutually exclusive. Choosing one, I have to take the loss of the other into the bargain. Maslow carefully describes this situation and conceived it "to be existential, imbedded in the deepest nature of the human being, now and forever into the future" (p.44). To each side of the bargain situation, he assigns a mode of experience: Being-Cognition for "growth but no safety" and Deficiency-Cognition for "safety but no growth". The latter type of cognition is "ordinary", the former is exceptional, a "peak experience". As Buber, Maslow is more interested in the exceptional than in the ordinary experience; therefore, his description of Being-Cognition. Unlike Buber, he does not proceed from a vision but from personal interview and a review of experiential descriptions, to compose a "composite photograph". Similar to Buber, Maslow describes Being-Cognition as resonating, immediate, comprehensive and continuous. This depiction of Being-Cognition is very close to William James' definition of a mystical experience, only more detailed. But unlike both James and Buber, Maslow also mentions some "dangers" of Being-Cognition: 1. Since it is receptive, it makes action impossible or at least indecisive and it may make us less responsible. 2. Since it is uncritical, it can lead to undeliberate acceptance, to blurring of everyday values, to loss of taste, to too great tolerance. 3. Since it is immediate and not accountable, it can be misinterpreted by oneself and others as critical where it is not, as practical where it is not etc. By listing these dangers, Maslow comes much closer than Buber to describing the advantages of Deficiency-Cognition (or I-It relation). He therefore also comes closer to describing a bargain situation.

Yet, a few years after his *Toward a Psychology of Being*, Maslow wrote *The Psychology of Science* (1966), using his safety-growth paradigm to distinguish between safety-science and growth-science. The former leads to or drives toward "spectator-knowledge" (the old Deficiency-Cognition), the latter leads to or drives toward "experiential knowledge" (the old Being-Cognition). But the limitations of each and thereby the bargain situations are ignored. Now both kinds of cognition or knowledge stand side by side, each applicable in its own right. Spectator-knowledge "is sometimes all you can do with things, with objects that have no human qualities to be identified with and to be understanding about" (p.50). Experimental knowledge is "actually better, more efficacious, more productive of reliable and valid knowledge if we are trying to acquire knowledge of a particular person or even persons in general" (p.52). And finally, "A good scientist with two methods available to him, either of which he can use as he sees fit, is more powerful than a good scientist with only one method at his disposal" (p.95). The dangers, and with them the bargain situation, are gone; it seems now as if one can have it both ways. In order to justify this "having your cake and eat it too" fallacy, Maslow and many others refer to Bohr's Principle of

Complementarity. By calling two mutually exclusive alternatives complementary, they suggest that no bargain situation is called for. This is a gross misuse of Bohr's principle which has to be carefully generalized from physics to be at all applicable to other fields.¹¹ What can be said regarding the principle of complementarity in this context is that it is useless to try to piece together the all-encompassing experience by doing first this and then that. Complementarity means that each experiential episode is an interaction between the experienced and the experiencer and it is nonsensical to ask what the experience would be if it were not limited in this way, just as it is nonsensical according to Bohr to ask whether an electron is "really" corpuscular or wavelike. Since the notion of complementarity stresses the interaction between experiencer and the experienced, it also discourages the reconstruction of modes experience as types of instruments to be used by an observer.

6.2. BRIDGE EPISODES: COMBINED OBJECTIVE AND SUBJECTIVE EXPERIENCE

That experience is complex, becomes even more obvious with the mixed types. An experiential episode can combine both subjective and objective modes. Since it is not a "pure" type, it is dismissed by some as an uninteresting approximation to a pure type; others use it to claim that the gap between objectivity and subjectivity has been overcome. Both interpretations of combined episodes are hasty. To neglect bargain situations between combined episodes by declaring them meaningless or unimportant, is also a way of violating the Bargain Principle, as is the claim that combined episodes overcome the objectivity/subjectivity gap.

Unless a person has also "bridge episodes", as combined episodes may be called, the objective and subjective episodes are completely compartmentalized, belonging to two worlds as it were. Let us take some examples of bridge episodes. There are episodes that are both accountable and resonating. In these episodes an intimate, interactive personal relationship between experiencer and experienced is coupled with full verbalization, as for instance in the aesthetic assessment of beauty or during the empathetic interpretation of a text. There are also episodes that are both immediate and detached. In these episodes, direct access to the content of experience is coupled with a critical attitude, as for instance the careful review of a piece of music by its composer or the phenomenological study of color. These bridge episodes do not allow an "overcoming" of the gap between objective and subjective modes of experience, because each bridge episode is still limited. An accountable and resonating episode, for instance, is still lacking immediacy and detachedness, just as an immediate and detached episode lacks resonance and accountability. Yet these bridge episodes make it possible-- if only incompletely -- to link up two worlds otherwise totally separated. Fields of inquiry that are based on these bridge episodes are important because they provide missing links, but these "bridge disciplines", as they may be called, are also in the embarrassing position that they can satisfy neither rigorous objective nor rigorous subjective criteria. Phenomenology, introspectivism, and certain forms of intuitionism¹² all claim to be based on experience that is both immediate and detached. Hermeneutics, certain forms of ethics, and certain forms of aesthetics, all

claim to be based on experience that is both accountable and resonating.

6.2.1. *Phenomenology*. As such, fields that deal with bridge episodes perform valuable services by elaborating complexity where extreme subjectivists and objectivists do not suspect any. Phenomenology as conceived of by Husserl is a case in point. Empiricists let "the facts speak for themselves", implying that "experience" is the objective source of knowledge. This is a violation of the Bargain Principle. Against that, Husserl shows that things are more complicated. The feeling of self-evidence is itself a "theoretically invented feeling" (Husserl, 1962, p.79) and thus post hoc. Conversely, if it is not post hoc, it is the result of letting our preconceptions dominate the experience. What must be done in order to arrive at the basis of knowledge is to suspend these preconceptions. Phenomenology thus "aims at being a descriptive theory of the essence of pure transcendental experiences from the phenomenological standpoint, and like every descriptive discipline, neither idealizing nor working at the substructure of things, it has its own justification. Whatever there may be in 'reduced' experiences to grasp idetically in pure intuition ... that is its province, and *its vast source of absolute knowledge for it*" (Husserl, 1962, p.191, last emphasis supplied). Thus, in this descriptive science, bridge episodes that are immediate and detached, make it possible that absolute knowledge is gained. Yet does this claim not also violate the Bargain Principle?

In order to arrive at communicable knowledge, there must be accountability, which means post hoc verbalization of immediate experiential episodes. This introduces post hoc a coordinate system, as Weyl has maintained, and thus brings in the arbitrariness that was supposed to be overcome in pure intuition. This point against phenomenology is very important and has been made before in similar terms (see Brody and Oppenheim, 1966). But there is more. We saw above that Weyl was wrong to project every experience onto the dimension of absolute and relative. Experience has more structure (i.e. modes) than that. Similarly, while minimizing verbalization during the experience allows maximization of immediacy, immediacy itself (even when accompanied by a detached mode) does not guarantee "bracketing" (suspending preconceptions) because we still have the influence of other modes of experience. The deliberate mode empirically implies intervention of schema activation levels on the basis of some mandated decision, "a conscious knowledge that the particular end is to be attained" (Norman and Shallice, 1986, p.16). This mode also implies the influence of previous goal setting (say, the perception of absolute being). In this sense, bracketing is incomplete. The same holds for the systematic and comprehensive mode. Both depend empirically on schema selectivity, which in turn is governed by variation in the general level of activation. Which mode is more appropriate to achieving the 'reduced' experience? There is not ready-made answer but no matter what mode is chosen, it introduces preconceptions into the experience.

Thus, if the model of experience presented in this paper is even modestly correct, Husserl's conception of phenomenology also conflicts with the Bargain Principle. Others attempt to avoid the inherent limitation by claiming that language and

experience are two sides of the same coin so that all problems of carrying the absolute into a conceptual framework vanish by fiat. Some phenomenologists also strike in the other direction by requiring that the phenomenological experience be detached (critical) as well as resonating (empathetic). Since detached and resonating cannot be simultaneously maximized, this requirement also violates the Bargain Principle.

In hermeneutics, the "business of interpreting" (Heidegger), violation of the Bargain Principle is also ubiquitous. While interpretation is clearly a business of language and therewith dependent on accountable experience, it is also a business of direct "understanding" of the other (cf. Heidegger, 1962, p.161) and therefore dependent on resonating experience. Like other bridge disciplines, this kind of inquiry is certainly important, but it cannot be detached (critical) since it heavily relies on resonance, and it cannot be immediate (absolute) since it is necessarily accountable. This severe limitation both against the objective and the subjective side is often completely ignored. Heidegger, for instance, claims hermeneutics to be phenomenological (op.cit., pp.62f); thereby he acts as if hermeneutics were also detached (critical) and immediate (absolute). And while his major work, *Being and Time*, is riddled with a scholastic apparatus of concepts designed to uncover the meaning of Being, it is also stacked with appeals to immediacy and warnings as to the inadequacy of language as such. The problem of uncriticality is avoided by the idea that a revelation of the "thing itself" takes place during the hermeneutical experience because this experience is not critical vis-a-vis the content of experience. Thus "seeing clearly" and a revelatory use of language become criteria of validity. This is clearly a violation of the Bargain Principle.

Bridge disciplines, like phenomenology and hermeneutics, are useful even if they cannot satisfy rigorous objective and subjective criteria. Their danger lies in the false claim that they could satisfy these criteria in their own way. Science itself is only committed to "pure" objectivity as a standard for its results, not for all experiential episodes leading to these results. Polanyi (1962) has made a rather convincing study of this. According to him (and translated in the idiom of this paper), episodes that are deliberate (objective) but also comprehensive (subjective), or systematic (objective) but also continuous (subjective) and the previously discussed bridge episodes play an important role for both the process leading to a scientific theory and the interpretation of this theory, especially with regard to its possible consequences. However, the limiting and therefore embarrassing bargain situations contained in these episodes lead many scientists to ignore or deny their legitimate function in the process of science.

6.2.2. *East and West*. It is a curious fact that, searching through the Western literature, I cannot find an example of an explicit bargain situation between bridge episodes. Even the time-honored distinction between East and West is most frequently couched in terms of subjective versus objective. However, it is plain that the West cannot be reduced to objective experience; at best it can be said that the objectivity/subjectivity duality plays an important role in Western literature. Nor can the East be reduced to subjective experience. Looking through Eastern literature that was not exposed to

influence from the West, I find that pure objectivity and pure subjectivity play a very minor role. This suggests that, with regard to experience, what is characteristic of philosophers (and possibly of the peoples) of the East is their preference for combined experiential episodes. Although I called combined episodes "bridge episodes" they may become so autonomous that the role can be reversed and "pure" episodes appear as "bridges" between combined episodes. I suggest tentatively that two main combined modes have crystallized in old Chinese philosophy that has continued its influence to the present day: Taoism and Confucianism. Taoism stresses absoluteness and detachment. Although it is mystical, as commonly understood, it does not embrace frenzy, or emotions, or resonance or empathetic caring for the other. The Tao is absolute and cannot be expressed in words: "The Tao that can be told of / Is not the Absolute Tao / The Names that can be given / are not Absolute Names" (Book of Tao, I) and "He who knows does not speak He who speaks does not know" (Book of Tao, III, X, XIX). The Tao also preaches detachment rather than resonance with others: "Unattached, like one without a home" (Book of Tao, XX). But this detachment is still this-worldly and practical. Taoist mysticism is not characterized by pure inwardness or flight from this world, which sharply distinguishes it from Western mysticism. If it is permissible to translate this-worldly detachment by the mode of "detached", and absoluteness by the mode of "immediacy" (see Weyl's bargain situation above) then Taoism is indeed prominently based on a combined mode of experience. Confucianism, by contrast, stresses caring for the other and resonance but also insists on codification of ethical maxims with regard to self and other. Although there are common traits to both Taoism and Confucianism, resonance and codification would suggest that the experiential basis of Confucianism is diametrically opposed to Taoism. As if addressing himself to Confucianism, Laotse, the author of *The Book of Tao*, states: "On the decline of the great Tao, / The doctrines of 'love' and 'justice' arose". (Book of Tao, XVIII). The experiential basis of doctrines of love and justice are episodes that are both resonating and accountable, again a combined episode but, in contrast to Taoism, non-immediate and non-detached. The bargain situation contained in these two positions is plain: detached immediacy at the price of accountable resonance and vice-versa. Objectivity and subjectivity are no issue in this bargain situation since both sides contain objective and subjective modes. The East can be characterized by stressing bargains between combined episodes, and the West can be characterized by stressing bargains between pure episodes. A turning toward Eastern philosophy in our culture could have the beneficial effect of emphasizing neglected bridge episodes. But it cannot overcome the limitations of experience because -- at least according to our analyses -- experience will always be limited.

7. Conclusion

There are well known objective and subjective modes of experience. But as we have seen, the process of experience has dimensions that exert limitations on the simultaneous realization of these modes, relatively independent of what is experienced.

Thus the all-encompassing experience does not exist, and there is no way of piecing together this all-encompassing experience by sequential linking of experiential episodes. In other words, experience constantly confronts an individual with bargain situations in which the realization of one pattern of modes of experience precludes another. This is not to say that the individual can simply choose one pattern or the other on the short run. Certain modes of experience take some lengthy training. But on the long run, the individual does choose the modes of experience and thus the bargain situations are also fundamental choice situations of what shall I become? Acknowledging the bargain situations explicitly will improve some fundamental positions taken in philosophy currently in violation of the Bargain Principle. But it will have the added advantage that on this basis, we will develop a better understanding of other cultures and cyclical changes in our own Western culture, in which subjective experiential episodes will always come back as culturally valued forms of experience, no matter how "scientific" our culture has become. This is so, simply because experience is a bargain situation and the attractiveness of the modes not currently in fashion is always there and, like other goods, it increases with the length of its absence.

Notes

1. Parts of this paper are based on the fruits of a long cooperation with Paul Oppenheim with whom I published two papers on bargains (see bibliography). Were he alive today, he would also have been a co-author of this paper but I cannot guarantee that he would have approved of each sentence as it stands. I am quite sure however that he would have embraced the general line of the argument.
2. I will leave the term "experience" undefined. Further, to talk about "experiences" rather than experience would blur the continuous process of experience stressed here. Wherever I need to talk about subjective subdivisions of the continuous sequence, I will call them, as is sometimes done, experiential "episodes".
3. There is a strong parallel between with view of schemas and the discrimination model, a framing theory of action (cf. Lindenberg, 1989). In this theory, which was originally developed in 1979 by the author, each action situation is controlled by one particular goal (the frame) that structures the alternatives. This frame is conceptually very similar to the master schema. Compatible goals will strengthen the situational salience (i.e. the activation level), while competing goals will weaken it. The more the salience is weakened, the more likely that the strongest contender will win out, leading to a frame switch. In contrast to the Norman-Shallice model, the discrimination model is stochastic, which means that the degree of dominance of a frame (i.e. the relative strength of its activation level) is expressed in the likelihood with which a particular alternative will be chosen. If this is correct, it implies that contention scheduling is more complicated than assumed by Norman and Shallice.

4. Attention in this sense should not be confused with "orienting responses" such as turning the head toward a sound etc. Orienting responses are themselves actions controlled by schemas (see also Hochberg 1970). I will deal only with attention in this context.
5. The four process dimensions of experience partially parallel and partially augment Parsons' (1951) pattern variables for coding cultural differences.
6. "Objective" is here used in the sense of "intersubjective", as is often done in philosophy. An objective of experience implies an intersubjectively testable cognitive performance and does not require privileged access.
7. A subjective mode of experience implies impressions by the experiencer during the experiential episode, and it therefore requires privileged access.
8. These comments are inspired by, but not directly quoted from, A. Lacroix' account *La Montagne Pelle*.
9. There may be other modes of experience that may be at least as practical and fruitful as those chosen by us. Yet we have reason to believe that many other modes of experience are either equivalent or reducible to our eight modes (see below examples in connection with the Bargain Principle), or at least similarly dependent on our four process dimensions of experience.
10. It should be stressed that when I speak of "impressions" with regard to subjective modes, no derogatory meaning of error, hallucination, illusion, arbitrariness etc. is implied. These derogatory terms fit defective performance of objective modes or faulty interpretation of a subjective mode as an objective mode.
11. See Lindenberg and Oppenheim (1974), for such a generalization of Bohr's principle.
12. See for instance Morkosvy (1972).

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