

## NOTES TO LECTURE II

- {27} - We'll hold off on this ("statistical laws") until the appropriate moment—when we get to energy, entropy, etc. See 114ff, and *I&R*, p.280. Also, more important work starts on 750.
- {30} - In any case they (rules) would have the effect of *limiting* that unlimited social privilege. The most inconsequential case will be taken, such as "all the screws in Smith's car". No one need follow the rule where not applicable.
- {32} - All preparatory to the "game" itself:  
           name - point to and identify.  
           meaning - to those naming.

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essential properties of a thing.

P statement

sacred *pot*  
*ante* from each

P statement

P statement

P statement

See below {45n.2}.

- {36} - The point here (coordinated set of procedures) is that no matter what decision is made about the set, that decision is part of a joint decision about other sets as well. Any difficulty here has to do with the matter of *making* or using a rule. And the decision in one important sense is not really made yet at all, nor in **II-B**. *However*, this whole matter occurs within the context of things *already* having been *said*. What we are doing here is simply "sorting out" our language into sets so as to be simply consistent.
- {38} - Somewhere in here it would be a good idea to tie up all the expansions we have given to universality:
- 1) All members by rule.
  - 2) All "members" of a *set* of rules—the "universe of P".
  - 3) All conflicting evidence can *always* be handled (force/guarantee), such that,
  - 4) All members by rule forced (guarantee also) to adopt all *other* sets (Plato's "other"), each of which is a universe by implication from the original—the universe of *As*, etc.
  - 5) So—*all* members not logically reducible to *any* or *all sets* of rules (in lieu of the paradoxes).
  - 6) Any *one* set defines "two" universes—that of P *and* that of which P is the one which only happens to have been mentioned. The latter is *not* a universe in the same sense. Better, there are two perspectives to take on any universe of discourse—which perspectives are not to be confused. They are based on the distinction between making/using rules.
  - 7) The "universe of P" to which we refer is "*all* men when or if they refer to P by means of the "states of P" (as if they were all "down inside"—operating "within" the set of rules). This is the base of *using rules*.
  - 8) If we follow EM it would appear that a rule cannot be *made* out of whole cloth. It *is made* when the P-set is made. Thus the circularity in axiom systems, geometry, Gödel, etc.
- So the final point of **II-A** is that so far we are confined to the *use* of rules *once made*—*not how* they are made.
  - See also below {58n.}.
  - For completion of the above, see 138ff, where the typology of rule-*making* is developed, independent of and *prior* to the S and R *split*. Presumably profit can be taken only upon S & R *exchange*.
  - It would have to work both ways, that is, at all three generic points in the enterprise—investment/exchange/profit. The accumulated argument in **I**, **II**, and **III** (Appendix 1), will be the *necessity* to go *outside* S to understand any move.
- {42} - It might be thought that he need not proceed in this manner, that he might simply "continue"

to take the laws as universal, forcing him to give the material another name. But he would in fact be *breaking* the rule, in the sense that the act of heating the material would be taken as eliminating all the P-rules. It's not merely or accurately a denial of the heating process, but the insistence that *upon heating* the material which *was* P *is not now* P. Even if he follows the rule and calls it P<sub>2</sub>O<sub>5</sub> (the case of II-C), it's *still* P—P in *combination* with something else, or, in the case of decomposition by heating, say, P<sub>2</sub>O<sub>5</sub> as in another arrangement ("dis-combined").

- Better, see below.
  - Note here that *exchange* is taking place—the core meaning of necessity.
  - Here's where the rule works both ways *in re* language and laboratory operations. We're in a situation where we both force *him* to say what he does, and allow others to do what he says in the same circumstance, while we also allow *him* to say *how* he did it, *before* forcing others to do the same ("knowing how" *precedes* "knowing that" in this case).
  - Remember that the important matter here is *not* the name he uses—this is merely pointed up by our example. He can use any name he pleases, *including* P. There is no restriction. If he can say *how* changed he is no longer restrained—nor are we.
  - This is the core of the IK cumulative aspect of our development. Dependent on the "how", we are in deeper. The "conditions" to which we refer here are neither merely linguistic nor natural. *They* are now two sides of the notion. So HP's "taking it as a law" is not merely an alternative. Taking the P-rules within an operational change context is in fact taking them *fully*—in the *legal* sense.
  - *Whatever* we call it is legal, as long as it *reflects* the use of P in the "how". *Whatever he* says, he is *forced* to come up with a *matching* "how". If he says "red-P" he *must* say how he closed the container.
- [43] - The notion of "properties" which we are using here and in the GG (Galileo) quote is really a combination of two ideas:
- 1) Any property is a property of an event because it is *momentous* and cannot be denied as the *right* of its possessor (the man whose *act*, even of measurement in the quantum case, is reflected by the property as that which he has already *gained*, logically, as profit.
  - 2) Any property is *further invested* by a scientist, such that it *then* loses its profit status, without, of course, ever acting to deny its "substance" (substantial claim).
- Properties are thus "subject to change"—not mysteriously or automatically—as *re-invested*. In this sense they are *further* conditions—further results for purposes of setting conditions.
  - So it's a matter of the relationship of properties to *conditions* for their acceptance with a contractual enterprise. This is essentially still a matter of the "business end"—not speculation.
  - They are converted here (re-investment), by the fundamental law, in their status as private property/public domain. The property taken on full status when used, by the Hegelian argument.
- [45] - Remember that it's a spatio-temporal "state" to which we are referring, but it's likely (*much* more likely) that *we are not referring when we use s/t*. This is the Kantian decision. Our version is intra/inter-personal. The very "form of a complex event" *to us and between us*. Remember, for the EM argument later on, that this makes *s/t* relations *entirely* a matter of *legalité*, where *causalité* will occur when a change is denied *formally*. That is, the *purely* practical *s/t* construct will be denied in a principle stating *no* change—*no s/t* ratio. Thus the special character of *s/t* statements—thus the two *sides* of the Kantian business. *s/t* statements will be *most* practical, while principles will be prior and non-practical. (This is crude, but is the core.)
- Here's another version of it : The difference involved is between "knowing what it is" (which is here by the board) and "knowing what to *do* with it", whatever it may *be* both before and after whatever I have done with it. See also {43n.} above.
  - Note here, following up {32n.}, that the "quote" marks must be preserved as indicating an illusion—the idea that it is possible to "reduce" the nature of P to *s/t* terms so that, in turn, they will serve in practice as a *guarantee* for the accomplishment of *whatever* purpose there may be. It is as if the pot, once formed arbitrarily by *ante*, is an inexhaustible source for any and all players to "win". But that pot was *made*—by discourse—not discovered, in order for exchanges to be effected in the name of P. This substitutes license for freedom, noting with

- {47n.} that freedom carries its own implications.
- {46} - If someone comes along and picks up some of the red material, the only *objection* he could have to calling it P would be that he follows the yellow-P laws, but *that* forces him to *go along*. It does so because he also must now be committed to *not* heating to 256°C. For all men, if he calls the yellow properties P, he must say he did *not* heat the red material and thus cannot object to *their* calling it P. If he allows *them* to call it P, this is another sense in which *he* calls it P, but *not* as a claim. He *cannot* be forced to call it P *as a claim*, by the same *contract*.
- The argument is cumulative from universality/necessity. What appears to be the *problem* also *evolves*, step by step: In II-A it's a matter of a single line—unmelted | melted, and in II-B it's a matter of two lines—yellow | 44° | red. Look at it this way also: In I-A it was a matter of two lines —conditions/events simultaneous (really “between” the lines); and in I-B it was a matter of one line (*on* the line—ideal condition)—what *must* be the case, a *core necessity*.
  - There appear to be *suspensions* on a *derivative* level here— reflections of a suspension of S as a whole for purposes of production of goods.
  - Include somewhere how the deduced instancial statement is a rule prescribing “further conditions” as taken universally. The basic idea is that nothing can be said or done which would have the effect of undoing the deduction. Whether any more than one heating operation is performed or not is irrelevant, once the deduction is allowed:

This red stuff is P.

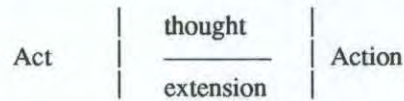
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All red (amorphous, etc.) is P

- (If you say, “This is red”, having heated it, then you must say, “This is P”.)
- This is *automatic*, as a *sum* of the deduction in a mixed quantification.
  - *This* is the reversal we simply inserted in the universality example.
  - The meaning of “all” could slip back to reference to “other” red materials. That is *not* an open question. So all cases of the original set were accepted on the basis of an action which was adjudicated (just as II-A, II-B will be cases involving *correction* with the counter-factual/subjunctive characteristics).
  - The red-set is identical to the original yellow-set *as a package*. That's why the yellow-set was not arbitrary—it is at least an *arbitrated* act. So II-A, II-B are mutually dependent, logically.
  - Take the melting point law. That also involves produced change—the unmelted/the melted material. The melting *point* of P “stands” neither for the unmelted nor the melted. Unmelted is the same as ~heated to 245°C. “Melts at 44°C.” has the same status as “turns red at 245°C.”
  - As for the yellow-P set, they would result from the *act* of selection, which act also has consequences; just as the heating act forces adjudication of consequences. In this case the “properties” of P are the results of an act of appropriation and are not to be associated with a material either “before” or after the *act* of selection. So P *and* the properties “stand” with the *act of appropriation*.
  - Though P and the properties stand with the act, when they are put together into a rule they are *made* to apply over time “from that time on”. This *latter* situation is what is further developed in II-B, where a definite limit is put on “from that time on”—*from* that time *to* such time as in any heating to 245°C. case. Then II-C *completes* the situation as far as the rule is concerned—“*from* that time *to* such time” is *universalized* by the weight definition. *That's* why the counter-factual/subjunctive is so crucial in the weight case. It's *not* primarily a correction. It sets us *free* to *start adjudication* of acts (see below for more on the priority of the act).
  - We're completing a *total* reversal in our argument, such that universality will be set up successfully thanks to the weight definition. The uncritical association of II with time by a Cassirer historical argument will be spotted and corrected.
  - So the apparent simultaneity of states in I-A is really the logical status of properties as *stated*

in conjunction with the act of appropriation. So there's no question that full adjudication in terms of space/time, mean kinetic energy, weight, starts with the act, which act in turn will have significance *in re* the "physical universe".

- This matter of the priority of the act should be the conclusion of the next argument after II, and it should lead in turn to the adjudication of acts *in se* (thanks to F in the weight case) in the following argument. (So we're spelling out the matter of act/thought as anticipated.)
- The latter argument will involve, "What are we to think about our acts, and what are we to say?" And this latter will lead to opening up the context of action to include:



on the profit/investment frame, where it will be necessary to distinguish S from R. So E (energy), conservation, entropy, F, etc., will come in IV (sic) as planned.

- {47} - Somewhere we'll have to spell out this necessity paragraph. See also above, {45n.}. Since logic is the form of prevision (in addition to the particular action involved), the form, more accurately, of a prevised *action*, the necessity at the minimum is merely ruled, disciplined action. But the more important part of the idea, which already runs through our development, is freedom, the freedom to manipulate conditions of occurrence at will. We need not do so, as said at the outset. So the present text is right on the track, but its full weight can only come out later in two places. First, it will take on more significance in the attempt to get beyond the necessity to act, which will be equivalent to an attempt to characterize a world independent of us (now *that* is spelled out—"independent of the necessity to act"). Second, and finally, it will tie in with the opposite, institutional setup—based on a attempt to prewise the *perfect* act. (This also was started, in a slim way, in remarks about medieval natural philosophy.)
- {50} - There should be no prejudice about the s/t (spatio-temporal) language of the fundamental law in the IN/Kepler case (the bodies of the solar system in themselves), just because the bodies themselves "can be seen", as they cannot directly in the P case except by the lattice.
  - Much of the discussion here is in anticipation of the fully distinct sense of "reference" that comes in II-C, where the sense comes out in the phrase "taken back". This means that "reference" is *not* the same as naming in any way, while naming is otherwise identified with the proper notion of unique determination of obligation—as in "signing your name".
- {51} - And he (the astronomer) is really confronted with the problem of coordinating the relationship which *he* has "activated" with *other* relationships of the same sort, including others that *he* might perform. This matter of coordination is accomplished by the proper positing, and specific locating, of a *point* of coordination in the given frame of reference. In Kepler's case, there is one, uniquely determinable point in the *second, elliptical* focus.
- {52} - Here, if not earlier, might be the place to tie up with the original outline of II. Here is where "induction" takes place. Once this strategy is adopted, all scientists under *these* conditions *must* cite the fundamental law. If they say *that* this is P, they must say how. So in a sense the "derivative" law is also that *from which* the appropriate fundamental law is "derived" (ruled).
- {53} - Note the one weak spot in what appears otherwise to be quite strong, instinctively, as a statement of feeling about a whole new scientific enterprise: ". . . as in motion or at least as in contact or not in contact with some other body . . ." This would probably be the underlying *competitive* aspect of the enterprise.
- {54} - Somewhere, perhaps later, put in a section showing how the two alternative strategies will account for historical tendencies and shifts. Emphasis may be placed on one or the other, to the point where it will be assumed it's the only strategy. Scientists and philosophers may be unaware of the alternative, and of the fact that a decision *must* be made in every case. It may then be assumed that a new *method* is at hand, to the exclusion of the former strategy, when a dramatic shift in strategy is made, as in the case of Galileo. (Note that IN will *not* be merely a shift back but a combination, where *his* step cannot be explained in terms of either strategy.)

- Also put the above in terms of the knowing distinction—"that" and "how". The latter will have a special appeal to an English temperament, such as John Locke on space, time, body, number, etc.
- Note also that this strategy skirts any considerations of "substance" (in anticipation of EM's *legalité*).
- Work on the notion of force *in re* a point-for-point run-down of the relativity of GG's ideas—bounding, shape, contact, etc. (He doesn't include it here.) It would appear, from what we have done before, that force and substance will remain separate—not relative.
- Note also in anticipation of EM that,
  - 1) identification is the central issue *in re* discipline, and,
  - 2) it is *not* to be confused with constant properties. This sets us up for EC's emphasis on identifying as a logical mode (like JD's "valuing") and EM's emphasis on identities and identity itself (as in Plato's "good").
- On referring/meaning (Russell, Frege, *et al.*), see especially 153ff—contractual restrictions on what something can mean.
  - 1) Fundamental law—*relational* (inter/intra-personal). The spatio-temporal terms—mean kinetic energy, molecules, etc. Contractual terms, of a *binding* nature, also grant *privileges*.
  - 2) Instantial statement—proper name, identification of an agent, who is to be held responsible for the act (fairly close to denoting).
  - 3) Derivative law—property terms, that is, the terms of a *settlement* (that's the "substantial" part—the "thing denoted" being uncritical). It's really a matter of "*what* is it—to me?"
- Resolution of the *legal* aspect comes with II, and relative weight falls within it, since weight is not automatically associated with mass or matter.  $F = ma$ , but F here has not yet been substantialized, as it is in the IN case.
- {56} - The "starting point" of our expanding circuit is an act, in the sense that even the single original experimental law is really a fundamental law; and the act context is expanded in the case of universality, where the original package of properties is at least a simple *conjunction* of derivative laws (which are really the embodiment of the argument—the *derivation* as a rule).

All P is 44°m.p. → For all men, if one says P *under all conditions* then he must say 44°C.  
(a truncated version of molecular crystalline lattice breakdown, with associated properties—melted/unmelted).

Here's the package: This is a P melted.

*Coordinating definition.*

This melted (at 44°C.) material is P.

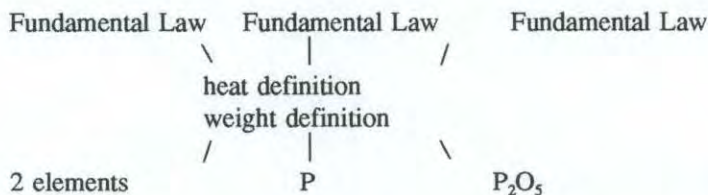
For all P under these conditions (probably "standard" conditions of pressure, etc.), if it melts at 44°C. then it is P.

+ For all P under these conditions, if it is yellow, then it is P.

+ For all P . . .

- Now we're ready to show that each instance of the above packaging involves a "correction" such that *each instance* is really a *new coordinating definition* as *corrective switch*. Once that is shown, the "direction" is not simply reversed—all sides or so-called strategies found in each instance. All emphasis is then placed on the act which the coordinating definition "coordinates"/"defines". The latter *is* the intra/inter-personal switch-over.
- {57} - ". . . that it can always be *taken back* strategically without eliminating it as a rule."—"reference" (to carry or take back), now fully distinguished from the "meaning" pair (extension and intension).

- “expanding *system* of explanation . . .”—an elliptical way of saying all are *corrections* of the definitional sort and subject themselves to correction.
- {58} - Somewhere we need a section on *assumed* “independent” means for determining the weight of the yellow-P which is at hand, when the change of strategy occurs. Even if it were in fact weighed before heating *that* result would be independent logically of the situation when the new rule is imposed. It would be a mere accident.
- We’ve gone ahead and drawn the conclusion that presently existing red material is either one (P or P<sub>2</sub>O<sub>5</sub>) but that it cannot be defined by the rule. Yet the rule system is not violated.



- However, if we *start* with the weight definition all decisions will be final. A discipline neither starts nor reaches a final point on the basis of rules.
- The counter-factual/subjunctive refers to this whole setup, not merely to an isolated law except when it is recognized that an isolated law (when fully explicated) is of the above sort.
- Another way of picturing the full sense of law-like conditionals is this:

*If* weight (by the definition) comes out—

< , *then* a Fundamental P-compound law, P<sub>2</sub>O<sub>5</sub>.

= , *then* a Fundamental P law, “red-P”.

> , *then* a Fundamental elements law, the *yellow* material a “compound” of two elements.

- This picture makes the intra/inter-personal clearer:



- Note also that the weight definition must be accompanied by a different, advanced form of instancial statement—of *pre-initial/resultant conditions*—such that *if* it is adopted its priority has the effect of proscribing the priority of an initial act.
- {59} - Note that there are *two* sides to any move in the sense that:
  - 1) all moves are corrective and eliminative, with the result that none of the *other* properties counts—if it should be (which it has not yet been) weighed before/after heating, and
  - 2) in the resultant situation, anything *with* those properties, but *not* previously weighed up, can count *without limit* as *any* one of the three things—but no one in particular if it had not been weighed (which it was not).
- This is true only if the coordinating definition is based on identity in time, and is reason enough for holding off on the third and decisive case, because it is totally exhaustive, and because the initiative *act* of heating is transformed (as well as all other acts, including *selection*, which are reflected in the members of the set of laws) to other contractual terms—conditional in both dimensions. That is, the inter-personal contractual arrangement is put on an intra-personal contractual base as well, and vice versa. The one is not reducible to the other, as argued, as the switch converts by way of *relinquishing* that act to all members, and by way of relinquishing all the words by that member.
- Thus, whether weighed or not, the previous properties do not count if not *said*. The weight condition is such that it makes all the difference if said, but it makes *no* difference, *then*, as an *act*—when performed. It is thus possible to *say* and *do nothing* about phosphorus—except

in terms of an act (in contrast to the "act" of selection *and* the "act" of hearing) which in itself makes no difference in saying *or* in doing. It makes no difference if said but not then done, and it makes no difference if done but not then said. That is, saying it (if you do it) makes all the difference, and doing it (if you say it) makes all the difference.

- That is, neither regress nor circularity can be claimed in an appeal procedure.
- Remember that "saying" has to do with what you *will* "do" contractually, and what you can be *held to having* done something.