INTERNATIONAL SOCIETY FOR ECOLOGICAL PSYCHOLOGY

ovember 1983 Newsletter Volume 1, Number 2

This second issue of the Newsletter introduces several new features. The ews and Weather" column explains itself, even if the authors don't. The lumn manuscripts, signed by knowledgeable but mysterious writers appear under r door when no one is watching. "Notes for teaching" was suggested by Steve addon, short book reviews by John Pittenger, and the "Unclassified Advertising" Robert Hoffman. Please offer whatever contributions you think would be useful our members, either as subsequent installments of existing features or as news tegories.

Social psychology, art, physics, philosophy, biology (including a broad range animal work), and other areas within the scope of our group need more public sibility. Any contributions?

CONFERENCES AND MEETINGS

ober Annual Meeting

Our required October Annual Meeting was held October 29 at Trinity College. re were eight presentations (ignoring Remez and Rubin's three part structure). sette tapes of all the talks and discussions exist and copies can be ordered the price of the tape and postage, as soon as the speakers have given per- sion. The speech perception demonstrations of sine wave speech come across rly well. There will be a formal announcement with details for ordering in next issue, which will also contain abstracts of all the presentations.

Members of the Board of Directors are elected for two year terms. However, order to stagger the terms, half the Board was elected for one year on ober 23, 1982. Consequently, those people were renominated and elected to two year terms at this 1983 meeting. These are: Margaret Hagen, Robert man, J.A. Scott Kelso, Nathan Knobler, William Mace, and Robert Shaw. Mari is Jones of Ohio State University was elected to a full two year term for the it time.

As our by-laws are currently written, voting on Board members is done by the members present at the annual meeting. It was agreed that this should be changed to allow all members to vote by mail. However, the by-laws cannot be changed until the next business meeting, at the earliest. Any members who think there is an urgent need for a particular person or category of person should present the argument directly to the Board, which has the authority to add as many as three members.

Alan Costall, one of our members in England, is organizing a British branch of the Society. He has invited Ed Reed, acting partially as our emissary, to attend a special session on Ecological Psychology at the December (1983) meeting of the British Psychological Society. Ed will describe that trip in a subsequent issue.

The work of the Society increasingly needs to be spread out over more people. The following committees were described and volunteers requested: Publications-Newsletter, Publications-Journal, Program, Finance, Public Relations, and Elections (including Nominations). Please write to me if you are interested in working. The last three committees are the ones that most need staffing. Those already tapped for action are Claudia Carello (next program); and Tom Alley, Steve Braddon, and Gene Goldfield on the Newsletter. The Journal committee is popular, and several people have volunteered for whatever comes their way without being more specific.

Next Meeting

There have been some misunderstandings about when to expect our next Society meeting, depending on whether one's expectations are based on underlying rules or empirical generalizations. According to the rules we must have one meeting a year. We need not feel compelled to meet more than that, but we have met twice a year, if the two Event Conferences are counted.

That brings us to 1984. There was enough 1983 enthusiasm on October 29 to spill over into the next year. Consequently there will be a Spring 1984 meeting. Without consulting our Calendar office yet, I would guess that the end of May, May 27, might be the optimal time for a meeting at Trinity. Graduation is over, but Reunion Week has not started. May 5, just after classes end, is another possibility.

Claudia Carello of the Psychology Department, SUNY Binghamton, Binghamton NY 13901, is now heading the Program Committee. Please send all pertinent comments about the late spring meeting to her.

What dates are best? Acceptable?

We also would like your opinion about the length of meetings. How many of you would prefer a two-day meeting? Several people have pointed out that traveling is not worthwhile to convene for one day and that they would have been more likely to attend a two-day conference.

How many people would favor a weekend, perhaps a keynote address, business meeting, and party on Friday followed by papers on Saturday?

Feel free to suggest your own favorite arrangement. We do not know what is feasible to organize, but we're not going to search until a fair amount of demand is evident.

1985 Event Conference

The Third International Event Conference on Perceiving and Acting will be in Uppsala, Sweden on or near June 1985. Planning is still very preliminary, but is moving ahead. As Tennessee Ernie Ford used to say, we'll see you there "if the Good Lord's willin' and the creek don't rise."

XXIII International Congress of Psychology

Joseph Perczel, a member of our Society and an active organizer within the Gestalt Psychology Society, has organized a symposium on Gestalt Psychology at the next International Congress in Acapulco, Mexico, September 2-7, 1984. He would very much like to find someone who could represent the views of James Gibson and discuss the relation of his work to Gestalt Psychology. We are assured that room can still be found on the program for such a talk, if a commitment is made by the end of January. He encourages everyone to attend the meetings to participate in the discussion.

Putative speakers should send a 300-400 word abstract to Joseph Perczel, P. O. Box 15457, San Diego, CA 92115.

NOTES FOR TEACHING

John Pittenger has stimulated some undergraduates to think more deeply about the principles of perceiving by examining the plausibility of Superman's X-ray vision, a thorough description of these ideas will be published in Perception. John might send you a preprint if you ask nicely. A Superman example on the action side, for adult audiences, was published in the New Scientist, 1983, 100, p. 41 (#1378, 6 October).

BOOKS

The University of Kansas Press has just published an autobiography of Fritz Heider. In case a few Society members are unaware of the importance of Heider in the history of ideas congenial to this group, it might be well for someone to submit a review of this book and a short description of his most important contributions. This would be a good occasion to draw in more social psychology than we have in past meetings and newsletters.

Campbell, Jeremy. Grammatical Man: Information, Entropy, Language and Life. Simon & Schuster, New York, 1982. A popular science book by a well-educated journalist covering information in a very broad sense. It discusses the history of Shannon's ideas, covers Chomsky, Gibson, evolution, DNA, split brains and a variety of other topics. While there are no novel insights here and one can gripe about his interpretation of some specific concepts, reading the book provides a useful occasion to think about the concept of information over many areas. Society notables Shaw and Jenkins receive attention.- John Pittenger.

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DOLEZAL, Hubert. Living in a world transformed: perceptual and performatory adaptation to visual distortion. Academic Press, 1982. 388p ill (Cognition and perception series) index 81-14856. 37.00 ISBN 0-12-219950-2. CIP

An appropriately revised version of the author's dissertation begun under Robert MacLeod and James Gibson and completed under Gibson. It features detailed protocols describing Dolezal's adaptation experiences during five weeks of wearing up-down reversing prisms, a modern updating of classical studies by Stratton and Köhler. The influences of MacLeod's phenomenological interests and Gibson's ecological realism are evident and contribute to sensitive, elaborated descriptions that are much less ambiguous than previous reports. These descriptions will provide useful preliminary data for a variety of investigators. The novel inclusion of separate studies on adaptation to a restricted field of vision and to the football helmet that ultimately held the prisms showed that many effects were probably caused by these conditions, not by the optical reversals. The discussions of issues and related literature are well done, as is the scholarship. The absence of a name index is irritating. A unique, useful book for psychology and philosophy graduate students and professionals interested in vision, learning, and epistemology, and also accessible to advanced undergraduates.

JOURNAL

Jack Burton of Lawrence Erlbaum Associates said that any new journal should be issued in January and stay in phase with the calendar year. That makes January 1985 our target. The expected lag between polished manuscripts (ready for copy editing I think) and distributions of the first issue is four months. Therefore, we have until the end of August 1984 to get the first issue out of our hands and into LEA's.

To begin, we intend a quarterly journal with 5-6 articles per issue. A year's worth of papers should be accounted for in some stage (not necessarily final) by the end of November 1984 in order to guarantee prompt publication of the entire volume.

Call for Papers

We have written to some people and soon will write to others to solicit papers for the first issues. The point, however, is to make sure that the first issues convey our scope, our style, and our standards by example. I shall provide a tentative characterization of what belongs in the journal here. Once a group of editors is consolidated, this early, windy, vague prose will metamorphose into a clear, crisp statement of policy to be printed in every issue. However, the exemplars of what actually gets printed will carry the main message of what the journal does. Hence the need for special care in selecting a representative sample of articles for the first year.

The range of potential subjects and relevant disciplines is fairly well covered in the list of presentations at the two Event conferences and five Society meetings. Someone could provide a very useful service, in fact, by listing and classifying these presentations for us to circulate.

The shortest "catch phrase" I've used to describe the journal's content (fudging to allow for appropriate overlap) is that it would be the complement of Cognitive Science. That journal and subject area emphasize a mix of psychology and allied disciplines that are largely formal—linguistics, computer science, and mathematics. We emphasize material allied disciplines such as biology and physics in addition to relevant philosophy and fine arts. Cognitive Science stresses analyses that hold independent of embodiment; we stress those that hold because of their embodiment.

The purpose of the journal is to promote scientific understanding of perceiving and acting in real environments. Relevance of a manuscript for the journal should be judged by the problems it addresses, not the position it takes. We mean to stress the close ties between understanding perceiving and acting (even if each is construed broadly) as suggested in the tentative subtitle, and the further ties of these to the environment, as in our main title. We must not require that everyone write from some monolithic point of view. Indeed, it does not take much scrutiny to discover that nominal adherents of some point of view rarely mean all the same things by it anyway. Natural topics include investigations of ecological optics, ecological acoustics, etc. as well as the organization of action. Theoretical entities that surely will receive much attention are information and affordances.

Two considerations that will constrain content and style are that the topics (though not the contributing disciplines) must clearly bear on psychology; and our audience is meant to include people from the fine arts, natural sciences, and philosophy. Since some ideas that interest us are largely in the realm of physics, biology, or mathematics, part of any paper in such an area should convincingly explain the relevance to psychology. Some tutorial pieces might be required as well. The second point suggests that if empirical work is presented, much of it should be described so that it can be widely understood. We mean to promote serious scholarship, but not insularity. The style of a straight APA data presentation addressed to an audience trained in the shorthand of psychological reporting is not appropriate. Keep the broader audience in mind.

In a letter to Board members earlier this year I mentioned several models for appropriate style and breadth. The one that comes to mind first is the target article style in The Behavioral and Brain Sciences.

In keeping with the last point, I have proposed to a few people that each manuscript be reviewed for intelligibility by someone outside the focal area as well as by at least two expert referees. What do you think of this as a mechanical procedure?

All papers will be reviewed even those that are solicited. Moreover, we want to do all that is possible to get careful reviews. This is especially important in the early stages of our development.

Boiled down, the requests come to these:

Please send:
(1) Manuscripts
(2) Ideas for manuscripts to see if people agree on what seems relevant.
(3) Refinements of, suggestions about, and reactions to the policy attitudes described so far.

NEWS AND WEATHER

Introducing the column and writing for this issue is the renowned reporter from the ecological underground, Jean-Paul Moscou.

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From around the corner and around the world, ecological topics make news. However, even the scrupulous news hound may experience some difficulty in identifying the good news, the bad news, and the ecologically valid news. To assist you in the quest, our crack team of reporters and stringers brings you News & Weather of ecological psychology. The particular orientation of topics, the slant of the stories (or, is it tilt?), varies from one installment to the next, but the general perspective is the familiar one.

CREATION OF NEW PROPERTY OF THE HUMAN NICHE--Researchers at the Sandia National Laboratories in Albuquerque have been studying foams. Those of us who are glued to the TV during the Indy 500 know that large scale foams are commonly used to fight fires. In such cases, a small volume of liquid, which froths as it is ejected, is aimed at a flaming wreck. The foam counteracts a necessary condition for combustion thereby putting out the fire, and then dissolves into a small puddle in about a half-hour. Well, the people at Sandia have developed a new liquid concentrate, 98% water (of course), that expands at a foam-to-liquid ratio of up to 600-to-1 (!), and has a foam half-life of 6 hours. This fabulous foam is truly an ecological innovation, and the thesaurus is silent on the proper adjective for describing it. Hyperfulminating? Megexpansive? It is true that the novelty inheres in the scale of the phenomenon, but this should not deny the significance of the effect. The foam in use should seem (to the terrestrial biped) to be an instantaneous, space filling substance created *le novo*. What a surprise! In fact, Sandia is aware of the likely perceptual effects of their experimental foam, for they contemplate using it as a defensive weapon in high-security installations. An interloper who trespasses in a nuclear storage facility, for example, will become completely disoriented when the foam instantly fills the room, obscuring vision for an interval long enough for the FBI to arrive. Of course, given the recency of this ecological innovation, there has been no time for research to occur on the important human factors issue associated with the intended use of this substance--disoriented human locomotion through foam.

MEDICATING MENTAL ILLNESS I--The September 1982, issue of *American Journal of Hospital Pharmacy* has an unusual article on the problem of prescribing drugs for psychiatric inpatients. The experiment went something like this: A number of diagnoses were presented to two groups of subjects, one a group of psychiatrists and the other a group of pharmacists. From a list of 20 drugs comprising anti-depressants, neuroleptics and anticholinergics, each group selected a medication to match every diagnosis. A group of judges then independently evaluated the appropriateness of each prescription without knowledge of the profession of the prescriber. Across the categories, the judges gave the pharmacists higher marks than they gave the psychiatrists! The conclusion? The pharmacist's advice should be able to improve the successfulness of the physician. One problem, naturally, is to establish that the prescriptive finesse of the pharmacists is consistent; one replication is worth a thousand t-tests. A characterization of the perceptual information that doctors and druggists each use would be helpful. And, no less important, it must be demonstrated that a pharmacist performs well while believing that a physician's behavior is influenced by the advice.

MEDICATING MENTAL ILLNESS II--A recent issue of *Science News* ran a noteworthy item about progress at the Maryland Psychiatric Research Center. This story will be of interest to any of us who have inferred mental states from the perceptual reports of subjects, or who have been puzzled by strange behavior in ourselves or in our colleagues. The problem is straightforward. Long-term use of antipsychotic medication produces permanent "side-effects." Moreover, the side-effects are motoric, and therefore are not easily concealed. With good fortune, you will never find out any more about this iatrogenic condition than you already know. One way to hasten this good fortune would be to eliminate long-term use of neuroleptic drugs, and to administer this kind of substance only for short periods when necessary--at the advent of a psychotic attack. Professionally speaking, this requires the physician to be an astute human ecologist, for the patient must be identified in the state of *incipient* psychosis on the basis of personal qualities and behavior. Although this approach seems promising, there is a major portion of the work still to be done, as you can see by considering the four early warning signals of immanent relapse: 1) heightened anxiety; 2) disturbed sleep; 3) suspiciousness; and, 4) hallucinations(!!) Together, these are claimed to predict 90% of the relapses. I know, you want to know about the remaining 10%; what manner of bizarre activity predicts their psychoses?

You want to know how hallucinations can be considered pre-psychotic. You want to know whether massed and spaced doses of antipsychotic drugs really have different effects. Well, the foregoing is really all the information that was available at press time. Pending answers to all of our questions, all I can say is, don't forget to wear a hat, and zei gesunt.

LEGISLATING AN AFFORDANCE--The theoretically controversial term affordance will become even more controversial soon as the New York State Legislature warrants a change in the ecology. This will be most noticeable in New York City. I refer to the politically controversial bottle bill, which reinstitutes the requirement that carbonated beverages (champagne excepted) be sold in refillable bottles, and that merchants collect deposits and redeem the empties. The explicit rationale is ecological in the original sense of the word--Sierra Club, low phosphate suds on washday, backpacks, bean sprouts, down jackets, endangered species, recycled refined materials, earth shoes, and, specifically, the concern for litter on America's highways and byways. But, though the intention is classically ecological, the neo-ecological psychological effect is one of legislated change in an affordance of street-corner garbage cans. Formerly, the only regular circumstance for picking through the trash cans was in the rain, to search for an umbrella (even a broken one), or on a clear day to find a newspaper. But, when the bottle bill goes into effect, we may expect to see certain people adopting a regular route, mining the mother lode of used bottles inadvertently or deliberately tossed out. The affordance of garbage cans is changed, then, primarily for those with modest needs and no other source of supplementary income, like winos, cub scouts, tourists short of bus fare, and the usual assortment of neighborhood lunatics. Next time you visit NYC, the bill may have become the law of the land, so look for some interesting contests between the drunks and the punks no further away than the nearest trash can.

MISPERCEPTION OF THE MONTH--1st prize to ISEP member P.E.R. who reports that he actually saw someone stand up in a canoe! He immediately admonished the individual to reeducate his attention.

UNCLASSIFIED ADVERTISING

Event Logic

Robert R. Hoffman (Adelphi University) and James M. Nead (University of Minnesota)

Ecological psychology and general contextualism do not entail throwing out computer metaphors; their criticisms of the information processing view are much more refined than that (note 1). They do, however, involve taking computer concepts and redefining them in event terms. For some years now we have been pursuing the implications of the event ontology for certain domains in abstract mathematics (i.e., event mathematics and intentional logics), information theory (i.e., theories of abstract data types), computer science (i.e., theories of computer program semantics), and general semantics (i.e., event logics for linguistic semantics). We have been relying heavily on (1) G.S. Brown's Laws of Form, (2) Franz Brentano's logic of judgmental events (the theory of "intentional signs"), and (3) a new mathematical system of "partially ordered events." So far, we have generated some event-defined restatements of predicate calculus and have shown that certain group-symmetrical relationships hold among the three logical formalisms. We intuit that such investigations may have significant implications for philosophy, mathematics, and computer science. If anyone out there has ideas along these lines, we would like very much to share correspondence.

Notel. Hoffman, R.R. and Nead, J.M. General contextualism, ecological science, and cognitive research. In press, The Journal of Mind and Behavior, 1983.

DISCUSSION

The memo, or "purple peril", by James Gibson that appeared in the last issue mentioned a contrast between his approach and that of researchers at Uppsala. Sverker Runeson has promised to comment on this remark. Rik Warren drew further attention to the difference between active psychophysics and traditional psychophysics in his talk at Psychonomics. This issue's memo on direct perception has been heavily edited. Ed was more conscientiously economical than he had to be, so I expanded it with his permission and guidance. Any comments addressed to Ed should first ask him if he meant exactly what was said. Some wordings may not say precisely what he had in mind. - W.M.M.

What is Direct Perception?

Edward S. Reed

In the literature on James Gibson's theory of perceiving, it is widely assumed that "direct perception" means "perception without any mediating process." I believe this usage, at least in discussions of Gibson's ideas, is misleading. The key to Gibson's concept of direct perception is specific information, i.e. information specific to its sources. Since adherents of ecological psychology are just as likely as opponents to fall into inconsistency on this matter, I would like to use this space to provoke discussion of the issue.

Gibson developed his own taxonomy of types of perceiving in a graded series from direct perception through several varieties of indirect perception. Direct perception, according to Gibson, means perception of the surrounding environment on the basis of freely obtained information that specifies both external things and the self. "Direct perception is what one gets from seeing Niagara Falls, say, as distinguished from seeing a picture of it. Direct Perception is the activity of getting information from the ambient array of light" (Gibson, 1979, p. 147). His examples of indirect perception moved from perceiving with optical instruments to perceiving by means of measuring devices, pictures, and finally, words. Each of these is a distinct way to embody information about a more remote source.

The central thesis of this paper is that Gibson's series of cases shows that he distinguished indirect from direct perceiving on the basis of information. The case of registering information in an ambient optic array that can be freely explored is the one that has the criterial qualities for direct perception and is the standard against which cases of indirect perceiving might be judged. To drastically oversimplify, regard Gibson's distinction between direct and indirect perception as embodied in the hypothesis that there is an informational distinction between Niagara Falls and a picture of it (them?). Registering the available information for the picture as a picture of Niagara Falls is to perceive the Falls indirectly. Registering the information for the "real" Falls in the ambient array is to perceive the Falls directly. Research on what information can specify what sources will tell scientists which distinctions are available for perceivers.

The more commonly discussed version of the problem of direct vs. indirect perception makes it first about external vs. internal primary objects. On this view, a direct theorist would maintain that the world can be perceived directly and an indirect theorist would say the world cannot be perceived directly. Rather, retinal images, neural firings, sensations, or other contents of the mind are directly perceived and experience of the world is derived. The method of derivation usually cited implicates "processes" such as inference or memory. Once inference and memory are brought in, and contrasted with perception, the focus of the problem of direct vs. indirect seems to highlight an analysis of what's involved in registration rather than what is registered (information and its sources). Now interpret the phrase "the registration of information" as a neutral rendering of what is involved in perceiving. The traditional interpretation of the contrast between direct and indirect perception construes the problem as one of understanding more about the nature of registration. Gibson, however, seemed to make it an issue about information and not about registration. Within his system, neither the claim that perception is direct nor the claim that it is indirect represents an assertion about processing. Gibson's 1966 book (The Senses Considered as Perceptual Systems) and parts of his 1979 book (The Ecological Approach to Visual Perception) show that his account of information had consequences for how one might go about studying and understanding registration processes (C.F. Gibson memo in ISEP Newsletter #1), but his account of the distinction between direct and indirect perception based on information was not itself part of a theory of registration.

If this explication is correct, then the representationalists (indirect theorists), who intend to be studying registration, and Gibson, who meant to be stirring up interest in information, are not two sides of the same coin. Put another way, they are not negations of one another. One does not arrive at Gibson's position simply by negating or denying any or all actual indirect theories, and vice-versa.

Gibson certainly understood the need for registration processes to be accounted for in a complete theory, but he assumed that research on information was more urgent because 1. so little of it had been done for psychology, and 2. the theory of processes depends on the theory of information to be registered.

Except where otherwise noted, send Newsletter items and comments to:

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