

Vicarious functioning as a central process-characteristic of human behavior

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"There is a variety of 'means' to each end, and this variety is changing, both variety and change being forms of vicarious functioning" (Brunswik, 1952, p. 18).

Egon Brunswik's theory is examined here not because of its historical interest but because of its relevance to current academic psychology. Brunswik's ideas are important for present-day psychology; they are not obsolete conceptions. This is especially true for his concept of vicarious functioning. In this web-essay the original concept of vicarious functioning shall be described exactly as Brunswik did, even if his language is not easy to understand. I also offer some explanation intended to clarify the concept.

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It is clear that Brunswik considered vicarious functioning a central process in human behavior. He described it as "one of the most important principles of functional theory" (Brunswik, 1955, p. 214), as "the basic definiens of all behavior" (Brunswik, 1957, p. 9), as "the defining criterion of the subject matter of psychology" (Brunswik, 1952, p. 17), or as "one of the most fundamental principles, if not the most fundamental principle, of behavior" (Brunswik, 1957, p. 22).

Vicarious functioning as a human process characteristic

In my opinion, vicarious functioning must be taken as one of several "characteristics of processes" that are typical for Brunswik's point of view. Such characteristics are of paramount significance in Brunswik's theory because his main scientific interest is focused on the analysis of processes in the transaction between organism and environment. The term "process-characteristic" - as introduced by me - means the critical course of events that is typical of a specific process. Brunswik observed

many such characteristics. In addition to vicarious functioning other important Brunswikian process-characteristics are probability, (semi)chaos, entropy and noise, semierratic ecology, equivocality, ambiguity and univocality, balance, redundancy and spuriousness, rivalry and compromise, and, last but not least, the lens model which is considered by me as one of the process-characteristics (Wolf, 1995).

The meaning of the concept "vicarious functioning"

In addition to the term vicarious functioning Brunswik sometimes uses the terms "vicarious mediation", or "vicarious response" which are semantically nearly the same. While in vicarious functioning the functional component is stressed, the other two terms concentrate the mediation aspect and the output aspect, respectively.

For Brunswik the central meaning of vicarious functioning lies in the combination of the concepts of "**substitute**" and "**mutual**" concerning the environment. It is interesting that Brunswik's use of the word mutual can imply both reciprocal and bilateral. For this process of vicarious functioning, I introduced the concept "virtuosity of replacement". The basic idea can be found as early as Brunswik's postdoctoral thesis (Brunswik, 1934, p. 191): "... data ... which stand in for the other, which stand in a 'one or the other-connection,' which can substitute mutually" (translation of the German text by B.W.). The clearest description of the process-characteristic vicarious functioning is presented in his core-book, *The Conceptual Framework of Psychology*, (Brunswik, 1952, p. 18): "There is a variety of 'means' to each end, and this variety is changing, both variety and change being forms of vicarious functioning." Or, in the same book, "... vicarious response (is the) ability to choose one means after another until the goal is reached" (Brunswik, 1952, p. 17).

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Vicarious functioning, the most fundamental principle of behavior, has important functions: reaching a goal, stabilizing behavior, and, finally, survival. Such ideas are formulated in the following sentences: "... it stresses the focal arc at the expense of checking on the scope and intricacy of vicarious functioning through which (relative) stabilization is alone possible"

(Brunswik, 1952, p. 27). In another statement he stresses: "...an objective definition of behavior in terms of a structured pattern (means) vicariously mediated periodic equifinality" (Brunswik, 1952, p. 25). Vicarious functioning is described as "... flexibility and exchangeability of pathways relative to an end" (Brunswik,

1952, p. 17). In place of Brunswik's term "exchangeability," I prefer "replacement" as used in my paraphrase "virtuosity of replacement."

According to Brunswik it is typical for humans to make use of alternatives, to commit only provisionally in order to keep possibilities for revision open. For human perception - or more generally: cognition - as well as for human action it is necessary to cope with inconsistent, unexpected, incomplete, and imperfect events.

An organism has the ability to cope with an extremely varied environment which is always at least partly erratic. In some aspects of life the organism has the potential to actively shape the environment, whereas in other respects the resistance of the environment presents unsurmountable obstacles. Vicarious functioning is the person-oriented competence of the "virtuosity of replacement," but the utilization of alternatives must work within the context of the restrictions and limits of the environment.

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The organism functions (more or less efficiently) by accumulating, checking, weighing, interchanging, questioning, partly utilizing, rejecting, or substituting "cues" and/or "means," by testing alternative methods, by accepting approximate and provisional solutions. Vicarious functioning can develop fully only with the combination of the person-oriented enfolding and the possibilities or limits of the environment.

In the waking state of the organism vicarious functioning is always "switched on." The process of vicarious functioning is usually rapid, and it is mostly unnoticed by the organism. Smallest changes in the structure of the process can be immensely important. Within the theoretical context of the lens model (Brunswik, 1952, p. 20) and vicarious functioning there exist analogies with the process-characteristic "actual-genesis" introduced by Sander (1926), and with cybernetics (feedback loops).

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If vicarious functioning is the focus of behavior, psychological laws that investigate only superficial structures or theories are inadequate. Research on human behavior has to investigate the ramifications of processes - and should investigate the utility of the numerous process characteristics proposed by Brunswik. The course of the

behavioral process itself must be investigated, and that process

generally produces tentative, provisional, equivocal results. Therefore, the search for univocal, lawful patterns or structures cannot be an adequate basis for the description of human behavior.

Conclusion

A psychology that does not integrate vicarious functioning into its realm of research leaves out central aspects of human behavior. This programmatic postulate of Egon Brunswik is not an outdated historical comment, but it is as valid today as ever. But this general process characteristic must be decomposed into smaller and more concrete components, and it must be defined operationally within its various aspects. Vicarious functioning will be a concept of the psychology of the future if this science takes the opportunity to concentrate on human culture in "naturally established mediation patterns."

Outlook

Firstly, vicarious functioning must be embedded into Brunswik's system of his **organism-environment-structure-model** which is the decisive structural framework of his whole theory (Brunswik, 1939, 1949, 1952; Wolf, 1995). Secondly, vicarious functioning is a prerequisite for the unfolding of **lens model** processes. Both connections could be expounded in another web essay.

References

Brunswik, E. (1934). *Wahrnehmung und Gegenstandswelt. Grundlegung einer Psychologie vom Gegenstand her*. Leipzig und Wien: F. Deuticke.

Brunswik, E. (1939). The conceptual focus of some psychological systems. *Journal of Unified Science (Erkenntnis)*, **8**, 36-49.

Brunswik, E. (1949). Systematic and representative design of psychological experiments. With results in physical and social perception (originally 1947). In J. Neyman (Ed.), *Proceedings of the Berkeley symposium on mathematical statistics and probability* (pp. 143-202). Berkeley and Los Angeles: University of California Press.

Brunswik, E. (1952). *The conceptual framework of psychology*. (International Encyclopedia of Unified Science, Volume 1, Number 10.) Chicago: The University of Chicago Press.

Brunswik, E. (1955). Representative design and probabilistic theory in a functional psychology. *Psychological Review*, **62**, 193-217.

Brunswik, E. (1957). Scope and aspects of the cognitive problem. In H. Gruber, K.R. Hammond, and R. Jessor (Eds.), *Contemporary*

approaches to cognition (pp. 5-31). Cambridge: Harvard University Press.

Sander F. (1926). Über räumliche Rhythmik. *Neue Psychologische Studien*, **1**, 123-158.

Wolf, B. (1995). *Brunswik und ökologische Perspektiven in der Psychologie*. Weinheim: Deutscher Studien Verlag.