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Psychologism with respect to a given branch of knowledge, in the broadest neutral sense, is the view that the branch is ultimately reducible to, or at least is essentially dependent on, psychology. The parallel with logicism is incomplete. Logicism with respect to a given branch of knowledge is the view that the branch is ultimately reducible to logic. Every branch of knowledge *depends* on logic. Psychologism is found in several fields including history, political science, economics, ethics, epistemology, linguistics, aesthetics, mathematics, and logic. Logicism is found mainly in branches of mathematics: number theory, analysis, and, more rarely, geometry.

Although the ambiguous term ‘psychologism’ has senses with entirely descriptive connotations, it is widely used in senses that are derogatory. No writers with any appreciation of this point will label their own views as psychologistic. It is usually used pejoratively by people who disapprove of psychologism. The term ‘scientism’ is similar in that it too has both pejorative and descriptive senses but its descriptive senses are rarely used any more. It is almost a law of linguistics that the negative connotations tend to drive out the neutral and the positive. Dictionaries sometimes mark both words with a usage label such as “Usually disparaging”. In this article, the word is used *descriptively* mainly because there are many psychologistic views that are perfectly respectable and even endorsed by people who would be offended to have their views labeled psychologism.

A person who subscribes to logicism is called a logicist, but there is no standard word for a person who subscribes to psychologism. ‘Psychologist’, which is not suitable, occurs in this sense. ‘Psychologician’, with stress on the second syllable as in ‘psychologist’, has been proposed.

In the last century, some of the most prominent forms of psychologism pertained to logic; the rest of this article treats only such forms. Psychologism in logic is very “natural”. After all, logic studies reasoning, which is done by the mind, whose nature and functioning is studied in psychology—using the word ‘psychology’ in its broadest etymological sense.

One convenient way to evade the charge of psychologism is to regard epistemology not as a branch of psychology but as an entirely separate field and to understand logic as formal epistemology. In order to leave room for alternative views, this option is not taken in this article.

Consider one form of the principle of excluded middle stated using the ambiguous word ‘proposition’: every proposition is either true or false. One *ontological* point at issue is the nature of the entities that are the subject of this law. How should the word ‘proposition’ be taken in order for the above sentence to express the law of logic known

as *the* principle of excluded middle? Views that this law is about judgments, thoughts, beliefs, ideas, assertions, statements, or any other mental or partly mental entities can be called psychologistic. Every such entity depends for its existence on some one person's mind. For example, every belief exists only in a limited time interval. It comes into existence at a particular time in the life of its believer and perishes no later than the believer does.

Other ontological forms of psychologism in logic arise by taking truth and falsity to be mind-dependent. Views that define a proposition to be true if and only if it is or will be believed by a certain person or group can be called psychologistic.

Psychologists tend to regard logic as an empirical science that studies mental entities. Logicians such as George Boole who refer to principles of logic as laws of thought invite being interpreted psychologically, unless of course they explicitly distance themselves from psychologism as Gottlob Frege did.

What are alternatives to psychologism? Gottlob Frege, Edmund Husserl, Kurt Gödel, Alonzo Church, and others have taken the principle of excluded middle to be about what Church calls propositions—tenseless, abstract, non-mental entities that are true or false and can but need not be meanings of sentences and contents of beliefs. For them, the principle of excluded middle is one proposition that is about all propositions. It is a single proposition that can be expressed in many different languages and can be the content of many different beliefs believed by different people at different times and places. This view has been called *Platonism*, *Platonic realism*, and *Platonic idealism*—even though it is doubtful that Plato held it.

Tadeusz Kotarbinski, Alfred Tarski, Willard Van Orman Quine, and others have taken the principle of excluded middle to be about sentences in the sense of sentence-tokens, physical objects composed of such things as sounds or bits of ink. Tarski is quite clear that this requires certain laws of logic to be dependent on laws of physics. Perhaps for this reason, the Kotarbinski-Tarski-Quine view has been called *physicalism*. In contrast, America's pre-eminent logician, C. S. Peirce (1839-1914), was quite clear that logic was not about tokens (1998, 311). In the process of interpreting the writings of philosophers to determine their views of the nature of the entities dealt with in logic, it is important to realize that one and the same writer may hold different views at different times, and even in different parts of one and the same work.

There are different kinds of psychologistic theses: ontological, foundational, and epistemological, to mention three. Ontological psychologism, treated above, says that logic is about mental entities or that truth and falsehood are mind-dependent. Foundational psychologism addresses the ground or foundation of logic, why it is that logical laws are true. For example, to the question of why a given conclusion follows from given premises a psychologist might refer to the nature of thought or the nature of the mind. Epistemological psychologism concerns how we "know" that logical laws are true. One psychologist might answer that it is impossible to think otherwise; another might appeal to psychological empirically based induction. For reasons of space, the last two kinds of psychologistic theses have not been treated.

Peirce died before the issue of psychologism was debated in the United States. He never wrote about the various forms of psychologism in logic. He did nothing to distance himself from it in his famous 1880 paper "On the Algebra of Logic", reprinted in the 1992 Houser-Kloesel volume. It is open to a psychologistic interpretation. It begins with

an embarrassing psycho-physiological preamble characterizing rules of inference as habits. Peirce asserted that “the logician” maintains that “the process of inference or the spontaneous development of belief” is evolving according to a law, and he wrote that “the process of inference” is “adapted to an end, that of carrying belief, in the long run, toward certain predestinate conclusions which are the same for all men”. Almost a quarter-century later, he distanced himself from another form of psychologism in logic by saying that his principles debarred him “from making the least use of psychology in logic” (1998, 210), without being very explicit about the principles or how they “debarred” him. In an unpublished manuscript written about the same time (1998, 300-324), he made a detailed attempt to construct a non-mental concept of proposition (1998, 308-312). For a discussion of psychologism in Peirce, see Kasser 1999.

Another quarter-century later Morris Cohen, one of the most important and respected philosophers in America at the time and one of the earliest to recognize Peirce’s greatness, vigorously attacked psychologism in his logic lectures at City College of New York. These lectures were worked into book form by his energetic student Ernest Nagel and published in 1934 as *Introduction to Logic and Scientific Method*. The formal logic part is still in print with the original pagination. The anti-psychologistic remarks are in a subsection, “Logic and Psychology”, on pages 18-20. Throughout the book, Cohen and Nagel continue to distance themselves from psychologism and, for that matter, from physicalism. For example, their still fresh discussion of propositions explicitly warns on page 28 against confounding propositions “with the mental acts required to think them” or with the sentences that express them.

References

- Cohen, M. and Nagel, E. 1934. *Introduction to Logic and Scientific Method*. New York: Harcourt, Brace.
- Cohen, M. and Nagel, E. 1934/1962/1993. *Introduction to Logic*. 2nd. ed. with new exercises, indexes, bibliography, and editor’s introduction by John Corcoran. Indianapolis: Hackett.
- Kasser, J. 1999. Peirce’s Supposed Psychologism. *Transactions of the Charles S. Peirce Society*. Vol. XXXV, pp. 501-526.
- Peirce, C. S. 1992. *The Essential Peirce: Selected Philosophical Writings (1867-1893)*. Vol. I. Eds. N. Houser and C. Kloesel. Bloomington: Indiana UP.
- Peirce, C. S. 1998. *The Essential Peirce: Selected Philosophical Writings (1893-1913)*. Vol. II. Eds. N. Houser et al. Bloomington: Indiana UP.

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After reading Jeffrey Kasser’s excellent article again, I realize that other people include induction and abduction under logic and that I should have put ‘formal’ or ‘implicational/deductive’ in front of ‘logic’ the first time I used it.