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Intonation

See PROSODY AND INTONATION; PROSODY AND INTONATION, PROCESSING ISSUES

Introspection

Introspection is a process by which people come to be attentively conscious of mental states they are currently in. This focused CONSCIOUSNESS of one's concurrent mental states is distinct from the relatively casual, fleeting, diffuse way we are ordinarily conscious of many of our mental states. "Introspection" is occasionally applied to both ways of being conscious of one's mental states (e.g., Armstrong 1968/1993), but is most often used, as in what follows, for the attentive way only.

Introspection involves both the mental states introspected and some mental representation of those very states (as suggested by the etymology, from the Latin *spicere* "look" and *intra* "within"; looking involves mental representations of what is seen). Because it involves higher-order mental representations of introspected states, introspection is a kind of conscious METAREPRESENTATION or METACOGNITION.

WILHELM WUNDT (1911/1912) held that introspection provides an experimental method for psychology, and relied on it in setting up, in 1879 in Leipzig, the first experimental psychology laboratory. Some challenged this introspectionist method, following Auguste Comte's (1830–42) denial that a single mind can be both the agent and object of introspection. This, Comte had held, would divide attention between the act and object of introspecting, which he thought impossible. These concerns led WILLIAM JAMES (1890) and others to propound instead a method of immediate retrospection.

Introspectionist psychology foundered mainly not for these reasons, but because results from different introspectionist laboratories frequently conflicted. Still, experimental procedures in psychology continue to rely on subjects' access to their current mental states, though the theoretical warrant for this reliance is seldom discussed.

The phenomenological movement in philosophy, pioneered by Wundt's contemporary Edmund Husserl (1913/1980), held that introspection, by "bracketing" consciousness from its object, enables us to describe and analyze consciousness, and thereby solve many traditional philosophical problems. This methodology encountered difficulties similar to those that faced introspectionist psychology.

Some have questioned whether higher-order mental representations of concurrent mental states ever actually occur

and hence whether introspection, properly so-called, exists. According to Gilbert Ryle (1949) and William Lyons (1986), what we loosely describe as attending to current perceptions is really just perceiving in an attentive manner. But perceiving attentively itself sometimes involves attending to the perceiving, as when one is explicitly aware of visually concentrating on something. Moreover, when we report what mental states we are in, those reports express higher-order mental representations of the states we report; Ryle's denial that remarks such as "I am in pain" are literally about one's mental states is groundless.

It is often held that introspection involves some "inner sense" by which we perceive our own mental states. The seemingly spontaneous and unmediated character of perceiving generally would then explain why introspection itself seems spontaneous and immediate. This model could, in addition, appeal to mechanisms of perceptual attention to explain how we come to focus attentively on our concurrent mental states.

But introspection cannot be a form of perceiving. Perception invariably involves sensory qualities, and no qualities ever occur in introspection other than those of the sensations and perceptions we introspect; the introspecting itself produces no additional qualities. Moreover, speech acts generally express not perceptions, but thoughts and other intentional states (see INTENTIONALITY). So introspective reports express intentional states about the mental states we introspect, and introspective representations of concurrent mental states involve assertive intentional states, or thoughts. Introspection is deliberate and attentive because these higher-order intentional states are themselves attentive and deliberate. And our introspecting seems spontaneous and unmediated presumably because we remain unaware of any mental processes that might lead to these higher-order intentional states. Introspection consists in conscious, attentively focused, higher-order thoughts about our concurrent mental states.

Despite Comte's claim that attention cannot be divided, people can with a little effort attend to more than one thing. And attentive consciousness of concurrent mental states could in any case occur whenever the target mental state was not itself an attentive state.

A related concern is that attending to concurrent mental states may distort their character. But it is unclear why that should happen, inasmuch as attention does not generally alter the properties of its object. Introspection itself cannot show that distortion occurs, because even if it seems to, that appearance might be due not to the distorting effect of introspection, but to introspection's making us aware of more of a state's properties or of a different range of properties. Similarly for the idea that introspective attention might actually bring the introspected state into existence (Hill 1991: chap. 5). That may well happen, but it may instead be that, when that seems to happen, introspection simply makes one newly aware of a state that already existed.

Work by John H. Flavell (1993) has raised doubt about whether children five and younger have introspective access to their mental states. Four- and five-year-olds describe themselves and others as thinking, feeling, and experiencing. But they also describe people while awake as going for

significant periods without thinking or feeling anything whatever. Doubtless these children themselves have, when awake, normal streams of consciousness. But they seem not to think of themselves in that way and, hence, not to introspect their streams of consciousness. Flavell also reports that these children determine what people attend to and think about solely on the basis of behavioral cues and environmental stimulation. So perhaps their inability to introspect results from their simply not conceiving of thoughts and experiences as states that are sometimes conscious (see THEORY OF MIND).

Some have held that introspective access to one's mental states cannot be erroneous or, at least, that it overrides all other evidence (see SELF-KNOWLEDGE). RENÉ DESCARTES (1641/1984) famously noted that one cannot, when thinking, doubt that one is thinking. But this hardly shows that when one is thinking one always knows one is, much less that one is invariably right about which thoughts one has. In a similar spirit, Sydney Shoemaker (1996) has urged that when one has a belief one always knows one does, because a rational person's believing something itself involves cognitive dispositions that constitute that person's knowing about the belief. But the relevant rationality often fails to accompany our beliefs and other first-order mental states.

Indeed, psychological research reveals many such lapses of rationality. In addition to the misrepresentations of one's own mental states discovered by SIGMUND FREUD, other work (e.g., Nisbett and Wilson 1977) shows that introspective judgments frequently result from confabulation. People literally invent mental states to explain their own behavior in ways that are expected or acceptable. Daniel Dennett (1991) in effect seeks to generalize this finding by arguing that all introspective reports can be treated as reports of useful fictions.

Introspection not only misrepresents our mental states, but it also fails to reveal many concurrent states, both in ordinary and exotic situations (see BLINDSIGHT and IMPLICIT VS. EXPLICIT MEMORY). And it is likely that introspection seldom if ever reveals all the mental properties of target states. Many, moreover, would endorse KARL LASHLEY's (1958) dictum that introspection never makes mental processes accessible, only their results. At best, introspection is one tool among many for learning about the mind.

See also ATTENTION; INTERSUBJECTIVITY; SELF

—David M. Rosenthal

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The MIT Encyclopedia of the Cognitive Sciences

EDITED BY
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A Bradford Book

The MIT Press
Cambridge, Massachusetts
London, England

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Library of Congress Cataloging-in-Publication Data

The MIT encyclopedia of the cognitive sciences / edited by Robert A. Wilson, Frank C. Keil.

p. cm.

"A Bradford book."

Includes bibliographical references and index.

ISBN 0-262-73124-X (pbk. : alk. paper)

I. Cognitive science—Encyclopedias I. Wilson, Robert A.

(Robert Andrew) II. Keil, Frank C., 1952—

BF311.M556 1999

153'.03—dc21

99-11115

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