Orientation to person, orientation to self

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The neurologic examination often begins and then dispenses with an assessment of "orientation to person," a deceptively simple notion that has several features atypical of other elements of the examination. Unlike other principal components of the neurologic examination, orientation to person does not clearly correspond to a localizable function of the brain or nervous system, and there is no consensus on how it should be tested, what it signifies, and under what circumstances—if ever—it can truly be lost.

UNCERTAINTY IN THE ORIGINS AND SIGNIFICANCE OF ORIENTATION TO PERSON From 1974 to 1979, Ilona Engel[1] surveyed nearly 100 departments of psychiatry with respect to the content, origins, and interpretation of the mental status examination. She found no consensus on the meaning of "mental state" or its components. Forms of the examination were borrowed or devised internally, or of unknown or forgotten origins. Orientation was ascribed variable significance, often a subheading under sensorium, perception, or consciousness. Contemporary techniques for assessing orientation remain variable, and some standardized instruments, including the widely used Folstein Mini-Mental State Examination, assess only orientation to time and location, omitting orientation to person.

DISTINGUISHING ORIENTATION TO PERSON FROM ORIENTATION TO SELF Although we have long searched for such a case, from our own experience in examining neurologic and neurosurgical patients, we can provide no example of a conscious patient unable to state or appropriately respond to his or her name—apart from aphasic patients, malingerers, and memorable amnestics romanticized in film and literary fiction. "Orientation to name" is highly resistant to perturbation, even in advanced neurologic disease. "Orientation to *persons*," however—the plural suggesting a reference to others rather than the self—is more labile. Patients with delirium or dementia commonly misidentify people they encounter, even those most familiar to them. One of our recent patients, for example, a well-known playwright, insisted in her delirium that her neurologist was her equally well-known collaborator.

"Orientation to name," "orientation to person," and "orientation to persons" are kindred concepts, but the neurology and psychiatry literature reflect subtle distinctions among them. In *Adams and Victor's Principles of Neurology*, perhaps the canonical neurologic text of this generation, Ropper and Samuels[2] write that orientation includes "Knowledge of personal identity," assessed by asking "What is your name?" By contrast, in *The Diagnosis of Stupor and Coma*, which defined neurologic notions of consciousness for the last generation, Posner et al.[3] maintained that "identification of persons" is a component of orientation, while "disorientation for self is almost always a manifestation of psychologically induced amnesia."

Plum and Posner taught that orientation to person is more properly conceived as "orientation to *persons*," the ability of a patient to identify those around him or her. According to Plum,[4] this means that "You know who the person in front of you is," not that you know who you are yourself—you never forget self. Plum[4] once wryly quipped during Professor Rounds that the oriented patient "knows you are wearing a white coat because you are a doctor and not the ice cream man." *The Cornell Guide to the Neurological Examination* reflects this viewpoint, and in "Orientation to Person" asks, "Does the patient know the identities of the people around him, such as family, doctor, other patients, and friends?"[5]

CAN ORIENTATION TO SELF EVER BE LOST? Recently, in discussing this issue, Posner maintained that in his experience all patients (except for aphasics) answer at least to first name—though women may respond with their maiden names, even after using a married name for years (personal communication). In our own observations of neurologic and neurosurgical patients, we have likewise noted many examples of this

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phenomenon: patients with dementia, patients with delirium, post-traumatic patients, or postoperative patients may demonstrate regression to an old nickname or a former name unused for decades—to the astonishment of friends, family, or a longtime spouse at bedside. In our experience, this form of disorientation typically resolves with the underlying condition, and orientation to (present) name returns.

As to the question of whether orientation to self is ever lost, the most explicit taxonomy of relevant disorders is found in the psychiatric literature. ("Dissociative amnesia" with retrograde loss of autobiographical memory has been described, though its existence outside literature and film is controversial). Eugen Bleuler and his contemporaries, writing at the turn of the 20th century, recognized that the sense of self might be affected in a number of psychiatric conditions. Bleuler[6] noted that in schizophrenic patients, for example, "the correct orientation usually accompanies the false one; one might say that there is a double orientation." So the schizophrenic who in his delusion claims to be Christ will under appropriate circumstances (as when signing a check) also respond to his real name. According to Bleuler,[6] depending on the situation, "the patient uses now one, then the other orientation, and often both together."

HISTORICAL ORIGINS OF ORIENTATION TO PERSON In attempting to clarify the definition and significance of "orientation to person," we sought to trace the idea to its origin. The term "mental state" has been used since the early 19th century, but procedures for evaluating psychiatric patients were only systematized later, by Emil Kraepelin and his German contemporaries. In serial editions of *Psychiatrie: Ein Lehrbuch fur Studierende und Aerzte*, Kraepelin[7] described approaches to assessing the *psychischer zustand* (mental state), and in 1899 he identified 4 dimensions of orientation for the psychiatric patient as "the ability to find their way in the spatial environment, in the circumstances of the time, in the persons and in the whole situation."

German techniques for assessing mental state were given an explicit, American form by Allen Ross Diefendorf, the Yale psychiatrist who translated Kraepelin into English. Diefendorf[8] prefaced his 1907 translation by stating that "For the convenience of students the chapter on Methods of Examination is amplified by explicit practical suggestions." Interpreting Kraepelin, Diefendorf then wrote: "Orientation to time, place, and persons is tested by such questions as: … 'Who are these persons about you, their duty here, and what is your mission here?'"

Over the course of the 20th century, the "s" in "orientation to persons" was lost in translation, as many English-language texts shortened "persons" to the more common, singular form. Yet whereas the plural form implied a clear reference to others, "orientation to person" was ambiguous, permitting reinterpretation as "orientation to self" or "orientation to own name," notions reflected in contemporary English-language literature.

NEUROLOGIC MECHANISMS AND PRACTICE RECOMMENDATIONS We have only a superficial understanding of the neural mechanisms responsible for processing the various components of orientation. Orientation to persons requires constant storage and retrieval of situational information. It therefore relies on the integrity of subcortical, limbic structures and circuits essential to the processing of recent memories.[9] Orientation to person, on the other hand, requires retrieval and processing of remote memories, including those for own name and other fundamental attributes of self, which are stored in association cortex.[9] In addition to these basic distinctions, it is important to recognize that disorders of attention and emotion, as well as other psychiatric conditions, can impair normal memory function and disturb orientation. Strub and Black[9] refer to such conditions as "functional memory disturbances," and in keeping with Plum and Posner, they note that the "dissociative state" (psychogenic amnesia) is the most common psychiatric condition in which memory disturbance is a principal feature. Specific loss of memory for own name, however, is also a recognized feature of malingering.

The notion of orientation to persons implicitly includes a dimension of situational orientation, as implied by Kraepelin and others. Among our contemporaries, a 4-component assessment of orientation is not uncommon, in which orientation to name and situation are tested separately, in addition to orientation to place and time. Informal discussions with colleagues trained overseas confirm that this heuristic is widely taught in Germany and elsewhere in Europe. We advocate that orientation to person (self and own name) and orientation to persons (others and situation) both be assessed in the neurologic examination of mental status.

DISCUSSION Orientation to person, in its originally intended sense, refers to an ability to correctly identify others. It is a higher-order cognitive function, and may fluctuate or deteriorate with illness or intoxication. Orientation to name and orientation to self, on the other hand, are more fundamental—acquired early in development, they are much more resistant, if not entirely invulnerable to environmental perturbations, and may be preserved as long as the mind functions sufficiently to be queried. The detailed mechanisms by which

orientation to name and orientation to self are so deeply learned, however, remain unknown.

AUTHOR CONTRIBUTIONS

Benjamin Rapoport: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, accepts responsibility for conduct of research and final approval, contribution of vital reagents/tools/patients, acquisition of data, statistical analysis, study supervision, obtaining funding. Samuel Rapoport: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, accepts responsibility for conduct of research and final approval, acquisition of data.

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DISCLOSURE

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