I am in broad agreement with Joseph Owens's fine essay. My reply will be relatively brief even though the issues that the paper raises are complex. Contrary to Quine's epigram, agreement, at least in philosophy, hardly goes without saying. But owing to our contentious natures as philosophers, agreement seems to breed brevity.

I think that Owens is right in his rejection of the indexical strategy for blocking antiindividualist conclusions. I think that he is also right in his conclusion that the aspects of psychological states typed by character in Kaplan's sense—or alternatively, typed by the intentional content of indexical expression types—are themselves individuated in nonindividualistic ways. I want to enter a few qualifications and elaborations on Owens's basic points.

My central claim in the Twin Earth thought experiments is not that the twins entertain different propositions and so warrant different belief characterizations. The notions of proposition and belief characterization have so many uses and construals that my view would be compatible with the sorts of trivializations that Owens argues against if it were not more specific. The central claim is that a wide range of mental states—considered in the ordinary nonrelational way as states in the mind or brain of the individual—are dependent for their natures and identities on relations between the individual and a physical and social environment beyond the skin of the individual. The view does not depend on appeal to singular propositions that include as constituents physical objects located beyond the individual's bodily surfaces. It also does not depend on thinking of mental states as themselves relations between an individual and elements in his environment. I find both of these conceptions unnatural and insufficient for understanding mental states and epistemology, though useful for limited purposes.

Where they are applicable, these notions are applicable in virtue of the sorts of mental states that are commonly recognized. For example, one believes a singular proposition only in virtue of intentional representations (concepts, percepts, or demonstrative representations) that indicate the objects and properties. One cannot relate to an object in thought except by indicating the object in a way that is part of some perspective on it. One bears *de re* mental relations to objects in the environment only by being in propositional states that are typed in terms of intentional contents that indicate, in a context-dependent way, the relevant *res*.

Anti-individualism is also not the claim that mental states fail to supervene on nonintentionally individuated physical states within the individual's body. I believe that certain failures of supervenience do point to the truth of anti-individualism. And I argued for such failures en route to arguing for anti-individualism. But supervenience failure is logically compatible with individualism. In the context of a "Cartesian" claim of the total independence of the mental from the physical and from any surrounding environment, one could consistently maintain supervenience failure together with individualism.

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Supervenience failure and anti-individualism are arguably logically independent in the other direction as well. The supervenience of mental states on underlying physical states for an individual is logically compatible in some instances with the truth of antiindividualism. If, for example, differences in the normal distal causes of perceptual states that are sufficient to individuate the perceptual states differently were also sufficient metaphysically to necessitate differences in the internal physical states, then the perceptual states might supervene on the internal physical states. I think that, generalized, such a view is metaphysically unattractive. I think that it is also empirically unwarranted as an account of the individuation of fundamental and even certain higher-level internal physical states. In such a case, both the underlying chemical states and the perceptual states would be nonindividualistically individuated—through their environmental relations; and they would vary together with variations in causal antecedents. We do not individuate chemical events in that way. But the point is that if supervenience did hold in these cases, that would not itself support individualism about perceptual states or perceptual beliefs. Antiindividualism is a claim about individuation, not a claim about possible alternative relations of internal, nonmental states to the environment.

To put the point another way, suppose that it were true, as Davidson holds that it is true, that any difference in the causal antecedent is necessarily sufficient for a difference in the identity of the effect (Davidson 1980, 2001). Then any difference in the antecedent causes of a mental state between the twin worlds would necessitate a difference in the internal physical states of the two individuals. So the Twin Earth cases would never illustrate a case in which the internal physical states of the twins would be the same while the mental states differed. But anti-individualism would remain true. For the mental states of the individuals would depend for their natures on relations to the individuals' environments. It is just that their physical states would be anti-individualistically individuated in an exactly parallel way. So supervenience would hold. I believe that Davidson's generalized doctrine about events is not true. But the issue here is not the general metaphysics of event individuation. My point is just that there is a notional difference between the doctrines of local supervenience-failure and anti-individualism.

Owens's criticism of the indexical strategy seems to me to be to the point. The strategy is almost always thinly supported and often rests on a misreading of analogies or a misjudgment of the thought experiments. Owens brings out an elementary version of this tendency in his criticism of taking the twins to have the same words in a single language. Moreover, the strategy distorts the logic and truth conditions of our language and thought. Almost any speaker/thinker can, through counterfactual cases, be brought to recognize that in his idiolect/psychology a term/concept like *aluminum* works very differently from any indexical expression. An indexical shifts its referent with possible contexts; the term/concept does not. The description-governed indexical applies to things in some pos-

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sible circumstances that the term/concept does not. Even with respect to actual cases, the individual will often recognize that the descriptions that he has available for picking out instances of the candidate term/concept may not always suffice to isolate what the candidate term/concept applies to. By contrast, a term/concept like *aluminum* suffices to apply exactly to aluminum and nothing else. Moreover, the individual will commonly recognize that his term/concept can be shared with others even though they associate different description-governed indexicals with it. The individual will also commonly recognize that the term/concept can remain intentionally and referentially the same even while his own means of identifying the referent may shift over time. The individual will commonly speak and think in accord with the recognition.

Some philosophers have taken over the anti-individualist account of how the applications of the candidate terms/concepts are fixed and have placed them in the psychology of the individual and claimed that this complex anti-individualist set of directions is constant across the twins and does all the work of the candidate terms/concepts. The problems with this strategy are similar. Children and unsophisticated adults need not have internalized all the rules that govern the referential workings of their terms and concepts. Even where the account is subliminally or unconsciously internalized, the complex description does not have the same logic or psychological structure of the ground-level terms/concepts whose intentionality the complex describes. How the term works depends on the environment's fixing certain parameters that the complex set of directions only generalize over. But terms/concepts work with these parameters already fixed, whether the individual knows how they are fixed or not. So the account in terms of metalevel antiindividualist directions does not supplant or exhaust the candidate term/concept in the language/psychology of the individual—even if and when those directions are internalized by the individual. The content of the individual's object-level term/concept is still fixed by factors outside the individual.

Owens points toward a further problem for the indexical strategy. The character, or alternatively the intentional content of ordinary indexicals, is itself subject to anti-individualist strictures, insofar as it types mental states. As applied to the strategy of internalizing the whole anti-individualist account, the point is that the terms used in the directions for fixing reference are, in most cases, no less subject to the anti-individualist argument than the candidate term/concept. If one tries to apply the strategy to all relevant terms/concepts at once, then, quite apart from the other difficulties that I have alluded to, one is left with an account of the language/psychology of the individual that is too inspecific to our actual environment to be credible. It leaves us absurdly without any cognitive states that *specify* kinds as such in *our* environment, and thereby underrates our epistemological powers. It makes psychological explanation independent of specific knowledge and belief about our actual environment, in a way that seriously distorts its character.¹

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Owens attacks one root of the indexical analogy by arguing that our understanding of the Kaplan-character (or ordinary constant linguistic meaning) of actual indexicals like 'today' is normally or frequently itself nonindividualistically individuated.² He points out that "twins" could be in different communities where the demarcation of the beginnings and ends of days are slightly different. He then proceeds to imagine that the referents of the twins' respective uses of 'today' could differ because the rule for determining what counts as within a given day would differ. So the character (or ordinary constant linguistic meaning) of the word-shape 'today' would also differ. All this could occur without the individuals' differing in their internal physical states. I accept the conclusion of Owens's argument about 'today'. I think, however, that the case is underdescribed as he puts it. The mere fact that Alf, the first twin, lives in a community in which 'today' is commonly applied to days beginning at midnight does not commit Alf to the same usage. But I think that Owens is right in holding that there is no reason to think that Alf's deviant belief (that one o'clock is the end of the day, or the second of two twelve-hour periods) must affect the meaning or the character of the term in his idiolect. The twins could be implicitly committed to the standards of their communities. If Alf himself is disposed to regard others' usage as a norm for correcting his belief, or if he thinks that when the day begins is not a matter of how he stipulates or takes it to begin but an objectively determinable matter, then lacking some further, very subtle empirical consideration, it is reasonable to take Alf's belief as mistaken. Alf himself may come to regard it as having been mistaken. And it is reasonable to take the meaning, or at least the rule for referential application of his indexical, to be the same as everyone else's. With this caveat, I think that Owens's argument is sound. The same sort of caveat is needed in Owens's whale-fish example. Merely being in a community in which whales are not counted as fishes by the cognoscenti does not ensure that one's own word 'fish' (or one's corresponding concept) does not apply to whales. One's usage has to be appropriately tied to that of one's surrounding community. (See also my reply to Chomsky in this volume.)

Our understanding of the character or intentional content of indexicals is antiindividualistically individuated in another way as well. Understanding the content of indexicals that deal with space or place ('here') depends on systematic perceptual and conceptual interaction between the individual—or at least the perceptual system inherited from others—and spatial locations. No thought or use of a sentence could have spatial meaning unless there were systematic causal and perceptual interactions between the individual or his system and specific locations in physical space. I think that we know this apriori, by reflection on cases.

The status of understanding of the temporal indexicals, with respect to time—as opposed to specific temporal boundaries as in Owens's discussion—is less clear-cut. It seems to

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me that our actual grasp of time is interwoven with our experience of change or motion in physical space. Insofar as this is so, the considerations of the previous paragraph reapply. It may be, however, that some aspects of our conception of time could "in principle" be developed from reflection on a procession of thoughts or sensations. For example, it may be that rudimentary conceptions of before and after could be developed purely from reflecting on change within one's phenomenal consciousness. I am more doubtful that a temporal metric could be developed in this way. It seems to me, for example, that our concept of a day, regardless of exactly when the day is taken to begin or end, is wrapped up with our experience of the trajectory, disappearance and reappearance of the sun, or changes in light. Having temporally specific concepts like today, yesterday, last year, the previous hour, requires some sense and conception of physical changes in space, such as the movement of the sun or changes associated with the seasons. Having such specific senses and conceptions seems constitutively dependent on interaction with a physical environment. Thus having either of the twins' concepts (of day and day*) inherits the anti-individualistic character of perceptual and conceptual representation of the physical world, quite apart from the more specific differences in their concepts. So the anti-individualistic nature of their concepts seems affected by the physical environment even more fundamentally than by the social environment. The physical dependence would remain even if each individual somehow avoided commitment to his community's usage.

More generally, I think that some of our sense of time depends on innate sensitivities to circadian and seasonal periods, built into our cognitive systems in something like the way it is built into the systems of insects, birds, and other animals. These innate sensitivities are surely anti-individualistically individuated, inasmuch as the cognitive sensitivities to temporal periods are evolutionarily tied to physical changes (day-night changes, the seasons, and so on) in the environment.³ Issues like these seem to me worth developing to determine the scope and form of anti-individualism.

The status of our understanding of the first-person indexical and other personal indexicals is more complex than that of our understanding of temporal indexicals. There is, of course, a long tradition, beginning with Kant's Refutation of Idealism, that maintains that understanding of a self, including temporal properties of oneself, depends on some anchoring of the understanding in experience of spatial objects. Whether, and where, this tradition is stating necessary truths is a question of continuing interest. The nature of our grasp of temporal concepts and the nature of our grasp of the first-person concept are in need of deeper investigation. What seems to me valuable about Owens's essay is his eliciting some of the ways in which anti-individualism goes deeper than the standard Twin Earth cases may suggest.

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Notes

- 1. For more on this, see my reply to Loar in this volume.
- 2. I prefer to concentrate on our understanding of the intentional content of the indexicals, their cognitive or conceptual content. I believe that Kaplan, Owens, and I now all agree that character is not to be identified with cognitive value. It is coarser-grained.
- 3. For a discussion of these matters, see Gallistel (1990), chapters 7-9.

References

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