

Online appendix: An argument for our central proposition and its corollary

The following, informal argument for our central proposition and its corollary can in principle be formalized. This means that, under an appropriate formalization of the different variants of individualism and holism, it could be turned into a proof (in the technical sense). Since formal philosophy is not our concern here, however, we confine ourselves with giving an expositionally simpler informal argument (broadly in line with Stoljar 2009).

To see that supervenience individualism does *not* imply any of the other three individualist theses, notice, first of all, that supervenience individualism is a thesis about facts, rather than about properties, particular objects, or explanations. Supervenience individualism is entirely consistent, for example, with the possibility that a complex social *entity* such as Facebook, which has an identity across time and across different hypothetical circumstances, cannot be neatly re-described as an individual-level *entity*, even though all *facts* about Facebook may be fully determined by underlying *facts* about individuals and their physical environments. If this is so, then, *a fortiori*, some *properties* of Facebook may be of an irreducibly social kind. Moreover, as discussed in the section titled “Why supervenience individualism is compatible with causal-explanatory holism”, regularities between such social properties need not be explicable in individual-level terms alone. Hence supervenience individualism does not imply any of the other three forms of individualism. This supports part (i) of the proposition. Part (i) of the corollary then follows by contraposition (i.e., from “p does not imply q” we can derive “not-q does not imply not-p”).

To establish that supervenience individualism is logically independent from token individualism, we must show that each of supervenience individualism and token individualism can be true or false independently of whether the other is true or false. Evidently, the truth of supervenience individualism is compatible with the truth of token individualism, and the falsity of supervenience individualism is compatible with the falsity of token individualism. Part (i) of our proposition already shows that the truth of supervenience individualism is compatible with the falsity of token individualism. To see that the truth of token individualism is compatible with the falsity of supervenience individualism (in the absence of additional assumptions), note the following. Even if every particular social object (e.g., entity, event, or process) is identical to some individual-level object, it does *not* follow, as a matter of logic, that there cannot exist some irreducibly social facts about such an object (e.g., it could have some irreducibly social properties). Token individualism is a thesis about particular objects (such as entities, events, and processes), which leaves open whether there could be any facts about these objects that go beyond (and are not entailed by) individual-level facts. This supports part (ii) of the proposition. The corresponding corollary follows because if two theses, p and q , are logically independent from one another, then so are their negations, $\text{not-}p$ and $\text{not-}q$.

To see that type individualism implies each of supervenience individualism, token individualism, and causal-explanatory individualism, finally, notice that type individualism, in view of its reference to general properties, is a very demanding thesis. Given that facts can normally be re-described as property ascriptions (for example, the fact that Washington DC is the capital of the US is equivalent to Washington's having the property of being the capital of the US), the translatability of all social *properties* to individual-level properties entails the translatability of all

social *facts* to individual-level facts. Similarly, given that particular objects can be re-described as instances of certain properties (for example, the particular city of Washington DC is an instance of the property of being Washington DC), the translatability of all social properties into individual-level properties also entails the translatability of all particular social objects into individual-level objects. Finally, a necessary condition for the existence of any irreducibly social causal relations is that the causal relata, which are typically certain properties or property instances, are irreducibly social, and this condition cannot be met if type individualism is true. So, type individualism implies causal-explanatory individualism. This completes the argument for part (iii) of the proposition; again, the corollary follows by contraposition (i.e., from “p implies q” we can derive “not-q implies not-p”).