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SETI AND ASTROBIOLOGY: THE RIO SCALE AND THE LONDON SCALE

**Abstract**

The public reaction to a discovery, the character of the corresponding risk communication, as well as its possible impact on science and society all depend on the character of the phenomenon discovered, on the method of discovery, on the distance to the phenomenon and, last but not least, on the reliability of the announcement itself. The Rio Scale – proposed together with Jill Tarter just a decade ago at a similar symposium in Rio de Janeiro – attempts to quantify the relative importance of a low-probability, high consequence event”, namely the announcement of an ETI discovery. The RSI value gives an impression on both its potential societal impacts and on its importance for science. The new London Scale, proposed at the Royal Society meeting this year in London, is a similar attempt to quantify the impact of an announcement regarding the discovery of ET life on an analogous ordinal scale between zero and ten. Several arguments will be presented that methods, aims and targets of “search for ET life” and “search for ET intelligence” are recently converging. This new tendency will be analyzed also by a comparison of the two scales. Is any possible case when there is an ambiguity in the question which one of the scales should be used? Is the unification of these two scales necessary as a consequence of the convergence of the two subjects? The risk problem will be investigated separately since its assessment is rather difficult. Since the risk assessment is a decisive, important issue in both cases, a thorough analysis of all relevant possibilities should be carried out. The two scales will be compared from this point of view as well. Both scales might be useful to communicate through the media to the public the probable significance of an announcement on the discovery of traces of an alien biosphere or of an alien civilization respectively. On the other hand it is suggested that experts in social sciences should take into consideration the structure of the respective scales when investigating case by case the possible effects of such discoveries on the society.