While many linguists believe that semantic structures are universal, it is sometimes recognized that languages may differ with respect to their expressive power: their ability to express concepts of various kinds. Nevertheless, the study of cross-linguistic variation in expressive power is often predicated on the assumption that such differences “make up for each other”, and that if one language happens to be of lesser expressive power than another with respect to one semantic domain, it will be of greater expressive power with respect to some other semantic domain. In other words, it is generally assumed that if, somehow, for each language, one could calculate the total expressive power across all semantic domains, all languages would come out to be roughly the same.

This paper argues that the assumption of equal overall expressive power is false. Instead, it is claimed that languages may and actually do differ significantly with respect to their total expressive power. Two lines of argumentation are presented: a principled argument suggesting that languages may and in fact must differ with respect to overall expressive power, and an empirical argument showing that languages actually do so differ.

On a theoretical level, it is actually very hard to envisage the kind of regulatory mechanism that would be necessary in order to ensure equal overall expressive power. Whatever the differences between them, most or all theories of language or of grammar are endowed with an architecture that is essentially modular, distinguishing between different grammatical and semantic domains that are subject to different kinds of rules and principles. To cite just one obvious example, it is hard to imagine a theory that did not distinguish between two phenomenological domains corresponding to what is commonly referred to as “argument structure” and “tense/aspect”. (Note: the assumption of modularity does not preclude that such modules may interact, such as, for example, when verbal aspect affects the choice of an accusative or absolutive case-marking system; what it says is simply that the relevant modules are themselves of very different nature.)

Now in order to maintain equal total expressive power, there would have to exist some overall regulatory mechanism that would be able to interact with just about every nook and cranny of the grammar, adding up the expressive power of each module, in order to ensure that the sum total reaches the pre-ordained universal target value. Such a mechanism is, to say the least, highly implausible. And it gets worse. What happens if a language develops a new semantic distinction in some particular domain, say an elaboration of the tense/aspect system? In order to maintain equal overall expressive power, the regulatory mechanism would have to compensate for this new distinction by reducing expressive power in some other module of grammar, perhaps by getting rid of some spatial distinctions expressible by means of case markings. But language simply does not work in this super-holistic way. Thus, it is hard to imagine the existence of a regulatory mechanism of the kind required by the assumption of equal overall expressive power. Moreover, in the absence of such a mechanism, it is extremely unlikely that the overall expressive power of all languages would, by sheer accident, end up roughly the same. Rather, it is a statistical near-certainty that the diverse diachronic processes governing the ways languages change over time would yield cross-linguistic variation in overall expressive power. Indeed, one would expect such variation to be of the kind characterizable by a bell-shaped curve, with a large number of languages with more or less average overall expressive power, sandwiched between a smaller number of outlying languages with significantly greater than average, or lesser than average, overall expressive power.

Empirical support for cross-linguistic variation in overall expressive power may be obtained from various psycholinguistic experiments designed to measure the expressive power of different languages. This work is still in preliminary stages, and therefore conclusive results are not yet available. However, interim results provide prima facie support for the existence of significant variation in overall expressive power. One experiment measures a global parameter which might be referred to as the specificity of a language. The experiment consists of two stages. At Stage 1, subjects are presented with pictures of various events, and are asked to construct a one-sentence description of each picture. At Stage 2, a different set of subjects are presented with the one-sentence descriptions obtained before, and, for each such sentence, with a set of 20 pictures: one of these pictures is the original picture for which the description was provided, while the remaining 19 pictures each differ from the original picture with respect to exactly one semantic feature,
chosen from a set that includes number, gender, spatial orientation, colour, shape, thematic role, aspect, and many others. For each sentence, subjects are asked to identify which of the 20 pictures are appropriately described by the given sentence. This number provides a measure of the overall specificity of the language: the fewer pictures that are chosen, the greater the overall level of specificity of the language. Work on this experiment is still in progress. A second experiment, similar in goal but of a more restricted nature, pertains specifically to thematic roles, measuring the specificity of languages in this particular domain. Preliminary results now becoming available for English, Hebrew, and several languages spoken in Indonesia suggest that with respect to thematic roles, English and Hebrew are characterized by a greater degree of specificity than their counterparts in Indonesia. Differences with respect to specificity thus constitute one of the ways in which languages may differ with respect to expressive power. Work in progress within this experimental paradigm is leading towards the conclusion that languages may indeed differ with respect to their overall expressive power.