Morphological productivity, that is, the likelihood of “an affix or morphological process to give rise to new formations on a systematic basis” (Plag 2005) has been a key topic in morphology research over the last decades (Bauer 2001; Hay & Baayen 2002). A fundamental issue is the question of measurement: How does one determine the relative productivity of a given affix? There have been at least three approaches to this problem, approaches that can be characterized by the type of data upon which they rely. 1) Dictionary-based studies draw conclusions using number of words with the relevant suffixes which are attested in an unabridged dictionary of the language; 2) Corpus-based studies calculate the number of low-frequency words, arguing that numerous low-frequency words with a single affix attest to the productivity of this affix, otherwise such words would be incomprehensible to native speakers; 3) Experimentally-based work relies on the lexical-decision task to gather data on native speaker intuitions about the productivity of the suffixes in question: nonce words with more productive suffixes will receive higher acceptability ratings by native speakers. Considerable work in one, or all, of these frameworks has been done on English. This paper addresses the question of measuring morphological productivity using data from Russian. I present data on the relative productivity of the Russian abstract nominal suffixes -ost’ and -stv-. The measurement of these suffixes’ productivity is based on the third of the above methods (adapted from Aronoff 1980). Native speakers of Russian participated in a lexical-decision task experiment where they were asked to judge whether or not test items were “Russian words”. Test items consisted of actual Russian words, possible-words (Russian stems with the addition of one of the two suffixes), and non-words (fake stems with the addition of one of the two suffixes).