

This is a great start for a first draft. The authors did a great job with the layout out and presentation of information. This is a very ambitious review of a seemingly long and complex article, and the author managed to compress and deliver the core ideas in a textbook like fashion. That said, I do wish there were more of a higher level summary in the beginning to make clearer what the key results are. For instance, it's unclear what "consequences" the authors are referring to "if there exists a polynomial-time reduction R from SAT to MCSP". The authors instead focused here more on the definition of "natural" reduction. I think this is unnecessary since this definition is reviewed quite in detail in the next section. The authors should focus more on what the "consequences" are, to give the audience a big picture overview. Same thing can be said about relating MCSP and P. With this big picture in mind, the audience would find it much easier to follow the Main Results section, since this section is already quite complex on its own. The readers have to keep track of several lemmata presented in highly technical terms, without a clear view of how these lemmata are interconnected. Most of the proofs presented looks good. However, the authors should try to expand some of these proofs further to make them clearer for readers. For instance, it's clear that induction can be used in Lemma 6, but the authors should carry this proof out in a step by step basis. Lemma 7 the authors should explain what makes the diagonalization argument nonuniform. The rest of the proofs looks good, though it seems a proof or a citation for a proof for Theorem 12 is missing. It seems like Corollary 13 is a very important consequence. Does this corollary show that MCSP is not NP-hard under a natural reduction? Is there a different reduction that might work? The MCSP vs P section hasn't been written and it's not exactly clear what the author is referring to when mentioning 2.4 and 2.5. It's possible these are sections in the preliminary that are yet to be written also. However, from the introduction, it's clear to me that this section will be discussing the challenge of proving that MCSP is not in P, and the intuition behind this challenge is clear. Overall, great start and looking forward to reading the completed version.