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### Short Paper 2

I agree with the idea that Imre Lakatos's "research program" is best understood as a synthesis of some of Popper's ideas with some of Kuhn's. Like Popper and Kuhn, Lakatos does not address the epistemic problems regarding science but the concerns pertaining to the nature of scientific knowledge and its distinction from pseudoscience. By expanding on the idea of Popper's falsification and Kuhn's paradox, he produces the research program.

Popper's underlying assumption for his theory of science is that all science is united by a single cause to describe the observable world as best as possible. He highlights Newtonian theories as "the collapse of the best-corroborated scientific theories" which confirms his subscription to the idea of a unity within the nature of science (Lakatos 1).

Kuhn argues against the unity of the sciences, a refutation of Popper, with the idea of paradigms. Paradigms are "package[s] of claims about the world" (PGS 77). Kuhn claims that "a scientific field usually has only one paradigm guiding it at any particular time" (PGS 80). Furthermore, Paradigms are extremely independent of each other, so much so that knowledge obtained within one paradigm cannot be transferred to another. However, paradigms are susceptible to a "revolution" which Kuhn considers a scientific change.

Lakatos takes Popper's explanation of scientific change to be rational and logical through his method of falsification (Lakatos 1). Compared to Popper, Kuhn's perspective on scientific

change is mystical and analogous to “religious change” (Lakatos 1). Lakatos goes on to develop his philosophy of science with an underlying favoritism towards Popper.

Lakatos viewed Kuhn’s scientific change as irrational. However, he found an attractiveness to the concept of a paradigm and created the research program. First, looking at the labeling of Lakatos’s research program in comparison to Kuhn’s paradigm, it is obvious Lakatos wanted to make a clear distinction between the two: research programs are not as encapsulating as paradigms and there is more than one research program in a scientific field.

Kuhn would go as far as to say that “[s]cientific education is a kind of ‘indoctrination’” (PGS 84). Paradigms encapsulate everything from the way you think to how you understand and perceive the world around you. However, Lakatos sees this as far too radical and determines that there can be, and most likely are, “more than one research program in a scientific field at any given time” (PGS 102). These research programs compete which results in scientific progress. Furthermore, a scientist is not perpetually stuck within a research program like a paradigm suggests.

Lakatos takes both Popper and Kuhn’s stands against positivist, inductivist accounts of science and develops his research program (Chalmers 130). This is Lakatos taking an idea shared by both philosophers of science. However, it seems like Kuhn’s idea of paradigms is more prevalent in Lakatos’s research program. This may be due to Lakatos’s overarching effort to solidify his position against Kuhn.