Conditional Probabilities

The unconditional probability $p(A)$ of a contingent proposition A is the probability that A is true. A's probability conditional on the truth of a logically independent contingent proposition B is standardly defined as

(1) $\quad p(A|B) = p(A \wedge B)/p(B)$

provided $p(B) > 0$. What this means depends on what these probabilities are used to measure, and in particular on whether they are chances or credences.

Chances are empirical probabilities postulated by theories in microphysics, genetics, evolution, epidemiology, etc. to explain such remarkably stable frequencies as the proportions of radioactive atoms decaying in a given time, of human births that are male, of unvaccinated people exposed to an infectious disease who catch it, and so on.

Credences, probability measures of our degrees of belief, are postulated by decision theories to say, rightly or wrongly, what, given them and our desires, we *will* (or, on normative readings, *should*) do, not how frequently we will or should do it. So credences aren't chances, and conditional credences aren't a species of conditional chance.

How then do conditional chances differ from conditional credences.