

be, served so well to express many chemical facts, that it kept its ground. It is found, for instance, in Lemery's *Chemistry*, which was one of those in most general use before the introduction of the phlogistic theory. In this work (which was translated into English by Keill, in 1698) we find alkalies defined by their effervescing with acids.⁴ They were distinguished as the *mineral* alkali (soda), the *vegetable* alkali (potassa), and the *volatile* alkali (ammonia). Again, in Macquer's *Chemistry*, which was long the text-book in Europe during the reign of phlogiston, we find acids and alkalies, and their union, in which they rob each other of their characteristic properties, and form neutral salts, stated among the leading principles of the science.⁵

In truth, the mutual relation of acids to alkalies was the most essential part of the knowledge which chemists possessed concerning them. The importance of this relation arose from its being the first distinct form in which the notion of chemical attraction or affinity appeared. For the acrid or caustic character of acids and alkalies is, in fact, a tendency to alter the bodies they touch, and thus to alter themselves; and the neutral character of the compounds in the absence of any such proclivity to change. Acids and alkalies have a strong disposition to unite. They combine, often with vehemence, and produce neutral salts; they exhibit, in short, a prominent example of the chemical attraction, or affinity, by which two ingredients are formed into a compound. The relation of *acid* and *base* in a salt is, to this day, one of the main grounds of all theoretical reasonings.

The more distinct development of the notion of such chemical attraction, gradually made its way among the chemists of the latter part of the seventeenth and the beginning of the eighteenth century, as we may see in the writings of Boyle, Newton, and their followers. Beecher speaks of this attraction as a *magnetism*; but I do not know that any writer in particular, can be pointed out as the person who firmly established the general notion of *chemical attraction*.

But this idea of chemical attraction became both more clear and more extensively applicable, when it assumed the form of the doctrine of *elective* attractions, in which shape we must now speak of it.

⁴ Lemery, p. 25.

⁵ Macquer, p. 19.