of heat, and this may be the cause why the feeble light of the moon, although in the atmosphere, like that of the sun, does not receive any sensible degree of heat. If, as M. Bouguer says, the intensity of the light of the sun to the surface of the earth is 300,000 times stronger than that of the moon, the latter must be almost insensible, even by uniting it in the focus of the most powerful burning glasses, which cannot condense it more than 2000 times; subtracting the half of which for the loss by reflexion or refraction, there remains only a 300dth part intensity to the focus of the glass.

Thus, we must not infer that light can exist without any heat, but only that the degrees of this heat are very different, according to different circumstances, and always insensible when light is very weak. Heat, on the contrary, seems to exist habitually, and even to cause itself to be strongly felt without light; for in general it is only when it becomes excessive, that light accompanies it. But the very essential difference between these two modifications of matter is, that heat, which penetrates all bodies, does not appear to fix in any one, whereas light incorporates and extinguishes in all those which do not reflect, or

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