ThemainchallengeinbiologywastounderstandgenereplicationandthewayinwhichgenescontrolproteinsynthesisItwasobviousthattheseproblemscouldbelogicallyattackedonlywhenthestructureofthegenebecameknownThismeantsolvingthestructureofDNAThenthisobjectiveseemedoutofreachtotheinterestedgeneticistsButinourcolddarkCavendishlabwethoughtthejobcouldbedonequitepossiblywithinafewmonthsOuroptimismwaspartlybasedonLinusPaulingsfeatindeducingthealphahelixWealsoknewthatMauriceWilkinshadcrystallineXraydiffractionphotographsfromDNAandsoitmusthaveawelldefinedstructureTherewasthusananswerforsomebodytogetDuringthenexteighteenmonthsuntilthedoublehelicalstructurebecameelucidateswefrequentlydiscussedthenecessitythatthecorrectstructurehavethecapacityforselfreplicationAndinpessimisticmoodsweoftenfearedthatthecorrectstructuremightbedullThatisitwouldsuggestabsolutelynothingandexciteusnomorethansomethinginertlikecollagenThefindingofthedoublehelixthusbroughtusnotonlyjoybutgreatreliefItwasunbelievablyinterestingandimmediatelyallowedustomakeaseriousproposalforthemechanismofgeneduplication