



2008

# Adam Smith and the Stages of Moral Development

Daniel R. DeNicola  
*Gettysburg College*

Follow this and additional works at: <https://cupola.gettysburg.edu/philfac>

 Part of the [Ethics and Political Philosophy Commons](#), and the [Social and Philosophical Foundations of Education Commons](#)

**Share feedback about the accessibility of this item.**

---

DeNicola, D. R. (2008). "Adam Smith and the Stages of Moral Development." *Philosophy Of Education Yearbook*, 95-103.

This is the publisher's version of the work. This publication appears in Gettysburg College's institutional repository by permission of the copyright owner for personal use, not for redistribution. Cupola permanent link: <https://cupola.gettysburg.edu/philfac/2>

This open access book chapter is brought to you by The Cupola: Scholarship at Gettysburg College. It has been accepted for inclusion by an authorized administrator of The Cupola. For more information, please contact [cupola@gettysburg.edu](mailto:cupola@gettysburg.edu).

---

# Adam Smith and the Stages of Moral Development

**Abstract**

The writer explores Adam Smith's Theory of Moral Sentiments, where Smith presents a rich and provocative account of morality. The writer offers an explication of Smith's moral psychology as a stage theory of moral development, with the intention of generating critical points on both matters of detail and larger implications.

**Keywords**

adam smith, moral psychology, moral development, moral sentiments

**Disciplines**

Ethics and Political Philosophy | Philosophy | Social and Philosophical Foundations of Education

## Adam Smith and the Stages of Moral Development

Daniel R. DeNicola  
*Gettysburg College*

In *The Theory of Moral Sentiments*, Adam Smith presents a marvelously rich and provocative account of morality, interesting for its problematic ideas as well as its persuasive ones.<sup>1</sup> Predominant scholarly opinion has been that *TMS* is stronger in its moral psychology and somewhat weaker on normative ethical theory (which is probably correct), but this assessment was used to justify its relative neglect in the philosophical literature (which is unfortunate). This has changed in recent years, as the emphasis on abstract rational models has been offset by contextualized models that give place to a reconstructed emotionality.

My interest here is exploratory and critical: I offer an explication of Smith's moral psychology as a stage theory of moral development, hoping thereby to generate critical points on both matters of detail and larger implications. By a "stage theory of moral development," I mean a theory that: (1) identifies distinct and empirically confirmed forms of moral agency ("stages") based on psychological operations; (2) claims these stages are universal, grounded in innate capacities, but perhaps requiring an experiential trigger; and (3) finds these stages form an invariant sequence, with later stages "including" earlier ones or being more "adequate" in a morally normative sense. Smith's approach to morality is empirical but anecdotal; he creates a gallery of verbal genre paintings, lively and familiar vignettes of human behavior that are both evidence and illustration for his theory. Throughout *TMS*, the reader hears the voice of Scottish "common sense" philosophy.

### SYMPATHY AND FELLOW-FEELING

Smith asserts that human beings are by nature sympathetic. He writes: "How selfish soever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it" (*TMS*, I.i.1.1). We naturally have pity for those in misery, sorrow for the sorrowful, and are buoyant with those who are joyful. Not only the virtuous, but "the greatest ruffian, the most hardened violator of the laws of society, is not altogether without" such sympathy. This is the fundamental capacity of morality; in Smith's story, all moral judgment and ethical behavior rest upon our innate ability to sympathize with the sentiments of others.

If the process of sympathizing seems intuitively simple, it is quite complex in Smith's presentation. Careful analysis is required because the concept does so much work in his theory; if it is problematic, then so is much of *TMS*. By "sympathy," Smith does not mean "pity" or any other particular emotion or sentiment. Nor does he mean "benevolence," "altruism," or other positive attitudes toward others. Nor does he intend "empathy," if that term implies either the projection of one's own feelings into another or the vicarious experience of the actual feelings of another in oneself. Smith pointedly acknowledges that "we have no immediate experience of

what other men feel.” Rather, to explain sympathy, Smith introduces a second innate, morally relevant capacity: imagination. It is worth quoting his account at length:

Though our brother is upon the rack, as long as we ourselves are at our ease, our senses will never inform us of what he suffers. They never did, and never can, carry us beyond our own person, and it is by the imagination only that we can form any conception of what are his sensations. Neither can that faculty help us to this any other way, than by representing to us what would be our own, if we were in his case. It is the impressions of our own senses only, not those of his, which our imaginations copy. By the imagination we place ourselves in his situation, we conceive ourselves enduring all the same torments, we enter as it were into his body, and become in some measure the same person with him, and thence form some idea of his sensations, and even feel something which, though weaker in degree, is not altogether unlike them. (*TMS*, I.i.1.2)

Precisely what we do feel may differ not only in intensity, but it may be a different emotion-type altogether: for instance, “our brother” may be a lout and feel exuberance, whereas we find ourselves flushed with embarrassment for his conduct.

Smith further observes that we possess an innate affective desire: the desire for “fellow-feeling.” We naturally take pleasure, says Smith, in “sharing” feelings; we are distressed when our feelings vary from others’. Each of us is Actor, doing and feeling, and Spectator, observing and responding to others. When as Spectator we discover that our sentiment coincides with that of an observed Actor, we experience fellow-feeling; we warmly approve and judge her sentiment “just and proper, and suitable to [its] objects.” When our sentiments are dissonant, however, we disapprove, finding her feeling and what flows from it unjustified. Fortunately, there are forces that work to bring our sentiments into the harmony we naturally prefer. There are social conventions, resting on utility, that limit the range of socially acceptable emotional expression. Realizing that other people will not share the intensity of one’s own feelings, yet desiring fellow-feeling and concord, one “can only hope to obtain this by lowering his passion to that pitch, in which the spectators are capable of going along with him.”<sup>2</sup> We naturally temper or “flatten” our emotional expression. Thus, observer and observed make mutual adjustments of accommodation to approach a congruence of sentiments.

We can delineate the steps in Smith’s account of sympathizing:

1. *Someone, the Spectator, observes someone else, the Actor, exhibiting direct or indirect signs indicative of an emotion,  $E_j$ .* These signs may be facial, behavioral, verbal, or physiological. If the Actor knows he is being observed, he will naturally temper his display to improve his chance for sympathetic approval.
2. *The Spectator interprets the situation of the Actor from contextual clues.* The attempt to understand the Actor’s situation requires alertness to detail and interpretive skills. Smith advocates moral particularism, cautioning that the Spectator should attend to “every little circumstance,” taking in “the whole case of his companion with all its minutest incidents” (*TMS*, I.i.4.6). Despite the claim that sympathizing is innate, note that we can,

apparently, learn to do it better — opening a role for moral education in the fight against obtuseness.

3. *The Spectator imagines himself in the situation of the Actor.* Moral imagination is required here, which Smith repeatedly describes as “bring[ing] home to himself” the Actor’s situation. Recall that the Spectator can only imagine himself, not the Actor, in the circumstances of the Actor; and he must imaginatively construct even those circumstances.

4. *As a result of his imaginative placement in the situation, the Spectator experiences an emotion,  $E_2$ .* This is not the same emotional experience as the Actor’s; frequently,  $E_2$  is less intense than  $E_1$ , and they may even be different emotion-types. Nevertheless, this represents a genuine human connection, since the Spectator’s affect is genuine, and yet originates not in his actual circumstances, but in those of another.

5. *The Spectator compares his emotion with that of the Actor.* This may seem impossible: the Spectator is confined within his consciousness and cannot inspect or experience firsthand another’s feelings. If we understand Smith to require the Spectator to compare  $E_2$  with  $E_1$  directly, we are stymied. To rescue Smith’s account, we must interpolate something like this: the Spectator, in interpreting the Actor’s situation (Step 2) recognizes the typical signs of a specific emotion-type within a certain range of intensity. Then he makes the comparison between his own emotion,  $E_2$ , generated through sympathy, and what he infers to be the Actor’s emotion,  $E_1$  — the inferred emotion I shall for clarity designate  $\{E_1\}$ . (Much is altered with this little amendment, but otherwise it seems to me that Smith’s moral theory is doomed.)

6. *If the sentiments  $E_2$  and  $\{E_1\}$  coincide, the spectator feels mild pleasure tinged with approval, and judges  $E_1$  to be just and appropriate. If they are quite different, the spectator feels discomfort, disapproves of  $E_1$ , and judges it to be unjust and inappropriate.* This approving pleasure or its opposite is itself a new, second-order emotion,  $E_3$ .

When we are children, the experience of sympathizing with and judging others is likely focused on family members. Smith says, “What is called affection, is in reality nothing but habitual sympathy” (*TMS*, VI.ii.1.7). The pressures of living together render the need for mutual sympathy intense: “by obliging them to accommodate to one another, [the situation] renders that sympathy more habitual, and thereby more lively, more distinct, and more determinate” (*TMS*, VI.ii.1.4). Smith’s story is that this affection reaches out with gradually diminishing intensity to more distant relatives, neighbors, colleagues at work, and, eventually, fellow citizens of our nation.<sup>3</sup>

I will close this section by noting several features of Smith’s account, holding their implications in reserve. First, it is significant that Smith traces morality neither to reason nor to our ability to apprehend and apply principles, but rather to a natural

capacity for emotional ties between people. Smith describes, however, no specifically moral emotion, no moral sense.<sup>4</sup> Second, sympathy inevitably ends in judgment — approval or condemnation. But what exactly is being judged? Primarily, it is the emotion  $E_1$ , though not in isolation; the Spectator judges the emotion's appropriateness comparatively and in relation to the interpreted context of the Actor. Because the Actor's emotion may imply a motive to act or inspire action, the Spectator's judgment reflects secondarily on these. But that "judgment" is not the product of deliberation; rather, it seems to be the cognitive content of a second-order emotion,  $E_3$  — the Spectator's emotion devolving from the perceived harmony/disharmony of sentiments. Third, Smith claims that observing and judging others characterize the first stage of moral development. The primary perspective is that of Spectator; yet, from early on, we also experience the reciprocal viewpoint, that of being observed and judged. Our natural desire for fellow-feeling spawns a desire for approval or praise, perhaps first sought from our parents, but generally from all with whom we interact. As Smith's story of moral development unfolds, both perspectives are crucial.

#### JUDGING OURSELVES

The second plateau of moral development involves what Smith terms "self-approbation and self-disapprobation." We learn to judge ourselves from judging others, applying the same sympathetic procedure. But how can we sympathize with ourselves? We must open up some sort of cognitive or psychological distance within us. Smith says:

We can never survey our own sentiments and motives, we can never form any judgment concerning them; unless we remove ourselves, as it were, from our own natural station, and endeavor to view them at a certain distance from us. But we can do this in no other way than by endeavoring to view them with the eyes of other people, or as other people are likely to view them. (*TMS*, III.1.2)

The "people we live with" thus provide a "mirror" with which we can reflect on our actions and imagine their approval or disapproval. This is complex, for it requires that I know my own heart, imagine specific others sympathizing with me, imagine their resulting judgment, and react to that imagined judgment. Smith is quite explicit about this psychic distance and its necessity:

When I endeavor to examine my own conduct... I divide myself, as it were, into two persons: and that I, the examiner and judge, represent a different character from that other I, the person whose conduct is examined and judged of. The first is the spectator, whose sentiments with regard to my own conduct I endeavor to enter into, by placing myself in his situation, and by considering how it would appear to me, when seen from that particular point of view. The second is the agent, the person whom I properly call myself, and of whose conduct, under the character of the spectator, I was endeavoring to form some opinion. (*TMS*, III.1.6)

We have here the second significant task for imagination in moral development: this mental self-bifurcation is made possible by imagining other sympathetic Spectators. No doubt our imaginations are endowed by the previous actual judgments of us made by parents and others, but internalizing such observers produces self-consciousness, gives us perspective on our own sentiments and conduct. To summarize:

7. *The Spectator, let's now call him "Adam," imagines other Spectators sympathizing with him and judging him. Adam also imagines their emotions of approval or disapproval, {E<sub>3</sub>}.*

8. *Because of his innate desire for approval and fellow-feeling, Adam wants his feelings to harmonize with those of his imagined Spectators. He will tend to moderate his emotions and behavior to obtain this concord. As he responds to the judgments of internalized Spectators, his motive is not a Hobbesian fear of harm, but rather the gentler discomfort of being out of sorts with those around him, reflecting his yearning for fellow-feeling.*

There are important complexities lurking in this account. In the first stage, natural sympathy found Adam observing an Actor, interpreting the Actor's circumstances, and then imagining what his own feelings would be in like circumstances.<sup>5</sup> In stage two, Adam must imagine Spectators who are engaged in the sympathetic process just described; that is, Adam imagines Spectators who observe him, who interpret his circumstances, and who themselves imagine what they would feel in such a situation. Can one really imagine an act of imagination by imagined Spectators? What basis would Adam possess for conjuring the feelings imagined others would experience were they in his situation? Adam possesses only his own memory as endowment for his imagination, yet the process must have a degree of independence in order for it to work. What really matters morally, of course, is the outcome: the putative resultant feeling of approval or disapproval regarding Adam that such imagined Spectators would have.

Smith implies that self-knowledge is made possible by self-consciousness, which is achieved by imagining the judgments of others. Although for Smith the self is not entirely a social construct — there is a human nature, which includes sympathy, imagination, and the desire for approval — it is forged in social interaction, on which self-knowledge and moral development are entirely dependent. Moreover, moral rules arise as abstracted generalizations of the judgments of Spectators; they are emergent, empirically based prescriptions. As he says, a moral rule is developed "by finding from experience, that all actions of a certain kind, or circumstanced in a certain manner, are approved or disapproved of" (*TMS*, III.4.8).

#### AN IMPARTIAL SPECTATOR

The actual experience of being observed and judged has led to one's imagining spectatorial responses to our actions. To judge the propriety of one's own sentiments, motives, and actions, one must scrutinize them as though they were someone else's. This leads directly to the third stage:

9. *Adam will desire to be judged fairly, independently, and impartially, free from prejudice and special interest. He will come to imagine a best judge, an Impartial Spectator. This is a significant move: instead of imaginatively consulting familiar Spectators or himself, he realizes that to obtain an optimal judgment, he must imagine the sympathy of someone impartial. Remarkably, this concept of impartiality seems transparent to Smith; at*

least, he must not think that the Impartial Spectator needs elaborate theoretical construction, for he provides none.<sup>6</sup> He seems to think of it as a commonsense notion, asserting simply that “all the...passions of human nature, seem proper and are approved of, when the heart of every impartial spectator entirely sympathizes with them, when every indifferent by-stander entirely enters into, and goes along with them” (*TMS*, II.i.2.2). This conception makes possible the next stage in moral development, because the projected Impartial Spectator, when internalized, produces a conscience.

10. *Adam imagines what E<sub>3</sub> an Impartial Spectator would feel were he to observe Adam sympathetically. Would the Impartial Spectator approve or disapprove — that is, have concordant or discordant feelings?*

11. *The imagined Impartial Spectator becomes internalized as Adam’s conscience, to be consulted as his moral guide. Knowing the Impartial Spectator’s judgments provides moral guidance — which ultimately supersedes the judgments of parents, peers, or imagined Spectators.*

The moves from internalizing imagined Spectators we know, to an Impartial Spectator, to a conscience, seem smooth and painless to Smith, albeit morally profound. Perhaps his Impartial Spectator is merely a generalized other or extrapolated observer, rather than an idealized observer. Nonetheless, problems remain: What conditions of impartiality define this Spectator? Is this Impartial Spectator particularist — sensitive to details of context? Does the Spectator have a culture, and are his judgments culture bound? Rather than pursue these lines, I must reluctantly overlook them here in order to examine what Smith is trying to accomplish.

First, throughout *TMS*, Smith asserts that the Impartial Spectator and one’s conscience are conceptually distinct, as, for instance, when he refers to the “approbation of the impartial spectator, and of the representative of the impartial spectator, the man within the breast” (*TMS*, VI.i.11). Conscience is not construed as the voice of one’s deepest feelings, nor is it a superego or insistent memory of parental sanctions. Instead, it is a representative of a Spectator, distinct from and impartial to oneself, yet lodged within, internalized as “the man within the breast.”

Second, although Smith introduces a sense of impartiality and rational consistency in moral judgments through the device of the Impartial Spectator, the process of moral evaluation remains one of sympathy and emotional experience. He has attempted to synthesize a working objectivity out of the subjectivity of moral experience. It might be charged that Smith has not shown whence the moral rightness of these sentiments of the Impartial Spectator derives. I believe his response would be: there is no sanction of our moral judgments to be found outside our moral experience itself. Smith’s theory is one of moral emergentism.

#### FROM THE PRAISED TO THE PRAISEWORTHY

The appearance of conscience triggers the final stage of moral development. Our desire for approval and consonance of feeling has continued unabated through the stages. We have learned, however, that “it is only by consulting [the] judge

within, that we can ever see what relates to ourselves in our proper shape and dimensions” (*TMS*, III.3.1). Gradually, we have become accustomed to judging ourselves by reference to an Impartial Spectator. We still desire approval and praise for our merit, but now it is the praise of the Impartial Spectator (more precisely, the imagined praise of the imagined Impartial Spectator) we desire over the praise of any actual Spectators, because that praise is just. We now desire to be praiseworthy, rather than (simply) to be praised. This is a natural transformation, according to Smith: “[B]ut this desire of approbation, and this aversion to disapprobation of his brethren, would not alone have rendered him fit for that society for which he was made. Nature, accordingly, has endowed him, not only with a desire of being approved of, but with a desire of being what ought to be approved of; or of being what he himself approves of in other men” (*TMS*, III.2.7).

12. *Adam’s use of the Impartial Spectator standard shifts his focus from seeking approval to seeking virtue, because what the Impartial Spectator would approve of is virtue.* This shift cuts in two directions: it not only guides one’s own conduct, it also provides a basis to judge that of others. If the Impartial Spectator would approve of it, if it were (therefore) praiseworthy, then actual observers should approve of it. If others in fact disapprove, one should feel no guilt at the dissonance and may be justified in rebuking them. Similarly we are justified in praising or blaming others if we judge conscientiously — as an Impartial Spectator would.

Smith acknowledges that this transformation is seldom absolute and complete. After all, the praises and blames of others are actual and vivid, however partial and undeserved, while the sanctions of the Impartial Spectator are only imagined and bear no tangible rewards or punishments. The sanctions of conscience are self-inflicted, and we have individual differences in our responsiveness to conscience, perhaps deriving from varying powers of moral imagination or different personal histories of being judged. And some extreme circumstances try our virtue more than others.<sup>7</sup> In any event, we have progressed to conscientiousness and the love of virtue. Over time, as a result of moral habits and our desire for approval, we identify ourselves with the “man within the breast.” The psychic distance between my conscience and me closes, until optimally, I find that my feelings are those of the Impartial Spectator, my actions are virtuous and praiseworthy, and my moral judgments are sound. In Smith’s story, this is the highest stage in moral development.

#### OBSERVATIONS AND CONCLUSIONS

Smith weaves moral development, identity formation, and self-consciousness into a stage theory, describing, he believes, common human experience. It is a theatrical story, a magic show, with Actors and Spectators, complicated contortions of the imagination, a self that is sawn in two and then made whole, and a conjured Impartial Spectator that reappears...in our breast! Smith wants to show that, although we are naturally self-interested and often selfish creatures, we also have an innate capacity for sympathy and eagerly desire approval; it is these qualities that make us capable of morality, that take us from self-interest to virtue and social

justice. Usually counted among classic liberals, Smith is also deeply communitarian; fundamentally, our social relations form our identity and shape our morality.

Smith's transition from seeking the praise of others to seeking to be praiseworthy is reminiscent of Lawrence Kohlberg's account of the transition from "good-boy, good-girl" to principled moralist: both transitions involve internalization, both theories seek to glide from "is" to "ought." Kohlberg's stages, however, appear through advances in moral reasoning, and the principled stage features the adoption of rational, universalizable principles.<sup>8</sup> Smith's is an account of the education of our moral sentiments, of the amendment of our feelings and the judgments they carry, and the highest stage requires the internalization of the emotions and patterns of judgments of an Impartial Spectator. Although Smith is ultimately concerned with conduct, in the primary instance, he says, we are not moral agents or reasoners: we are moral Spectators. We like to watch. We watch others, and others watch us. In the mind of a philosopher with a different temperament, this could take on a darker tone (for instance, a withering Sartrean voyeurism); but with Smith, all this "spectating" is buoyed by being coupled with sympathy, imaginative understanding, and shared emotions. Although it elevates relationships, sympathetic emotions, and attention to particulars over reasoning and rules, this is not, of course, an "ethic of care." It does not derive from particular commitments or the cluster of other-regarding emotions and motivations they generate.<sup>9</sup> It identifies no relevant gender differences.

Moral development theories, especially stage theories, often seem to minimize the role of intentional moral education — it all unfolds naturally. But normative development is not inevitable, and learning is crucial. Smith does not neatly distinguish acculturation from education; both result in learning. He does, however, suggest that we can improve our ability to read the situation of others, including those different from ourselves; that our capacity for self-reflection can be refined; that education in the arts can expand the moral imagination — though there is no substitute for wider experience.

Smith discerns a dialectic, a rhythm, to our moral lives: it is the oscillation between sympathy and response, between seeking approval and pronouncing a judgment. It is punctuated by comparisons — between your sentiments and mine, between the sentiments I imagine you to have and those I would have were I in your situation, between my sentiments and those of an Impartial Spectator, and so on. Moral development advances through this dialectic between attachment and detachment, particulars and abstraction, sympathy and judgment. Enhancing his moral imagination, learning to temper his emotions, and improving his reasoning and understanding of the world are important assets, but Adam's moral progress is marked by his accessing new plateaus of sympathy and judgment.

---

1. Adam Smith, *The Theory of Moral Sentiments* (1759), eds. D.D. Raphael and A.L. Macfie (Oxford: Clarendon Press, 1976). Subsequent references to this work will be cited in the text as *TMS*, followed by part, section, chapter, and paragraph number (for example, *TMS*, I.i.1.1).

2. Smith finds that these two processes of psychological adjustment give rise to distinctive types of virtues. The "amiable virtues" are connected with sympathy — sensitivity, kindness, compassion, and

indulgent openness. The “respectable virtues,” arising from the tempering of our own passions, are virtues of self-denial and self-control.

3. Smith believes, interestingly, that this sympathetic identification often fades at the borders of our country or culture; that we do not derive a love of humankind or a “universal benevolence” from our local affections; that, in fact, people often have negative feelings toward citizens of bordering countries. Extending our already much-faded sympathy to all humanity necessitates belief in a loving God and appreciation for his creation (*TMS*, VI.ii.2.1–18 and VI.ii.3.1–6).

4. On this matter Smith agrees with David Hume and disagrees with Francis Hutcheson. He has other points of divergence with Hume, however, notably on the issue of whether justice is a natural sentiment.

5. Except for special circumstances of self-deceit, Smith holds that we can transparently introspect our own feelings, though ascertaining the emotion-type and its true object may require a subtler, self-analytical process.

6. He may well be wrong. The obvious conceptual difficulty is the threat of circularity: how can we define an “impartial” Spectator except by its regular approval of what is right? But then we define “what is right” as “whatever gains the approval of an ideal Spectator.” Elaborate attempts have been made by other theorists to spell out necessary and sufficient conditions for being an “Ideal Observer” that are independent of actual judgments. The result, however, often seems to remain tainted: for example, a requisite condition may be (a) *possession of a normal emotional make-up*, which opens the suspicion that normality is definable only by reference to actual judgments. Another problem is the tendency of these analyses to slide toward the infinite: for example, one proposed requisite might be (b) *possesses all relevant knowledge*; trying to define “relevant” in a noncircular way pulls the theorist toward the condition (c) *is omniscient*. Moves like this draw the account toward greater abstraction; the Ideal Observer becomes “idealized.” My sense, however, is that Smith’s Impartial Spectator is very different from, say, the Ideal Observer postulated by Roderick Firth. I doubt that Smith’s Impartial Spectator is an Ideal Observer: there is a chasm between these severely conditioned, idealized observers and Smith’s “indifferent by-stander.” See Roderick Firth, “Ethical Absolutism and the Ideal Observer,” *Philosophy and Phenomenological Research* 12 (1952).

7. Smith believes that religious faith can serve to sustain us in trying times. The Impartial Spectator can perhaps be seen as a finite, human-scale version of God; or perhaps an all-seeing God who judges rightly can be construed as an idealization of the Impartial Spectator.

8. See, for example, Lawrence Kohlberg, *Essays on Moral Development, Vol. I: The Philosophy of Moral Development* (New York: Harper and Row, 1981).

9. See, for example, Nel Noddings, *Caring: A Feminine Approach to Ethics and Moral Education*, 2nd ed. (Berkeley: University of California Press, 2003).