Adam Smith on Conduct and Rules:
Experimental Trust Games; Emergence of Property

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Hume (1740) distinguished between disinterested commerce and interested commerce.

The first referred to our other-regarding sociability toward each other, particularly in close-knit groups. The second to our own-regarding market transactions with others.

Adam Smith wrote a book on each of these topics: *The Theory of Moral Sentiments* (1759) (*Sentiments; TMS*) *The Wealth of Nations* (1776) (*Wealth, WN*)
THE THEORY OF MORAL SENTIMENTS
An Essay Towards an Analysis of the Principles by which Men Naturally Judge Concerning the Conduct and Character, First of Their Neighbors, and Afterwards of Themselves...

Adam Smith, LL.D, F.R.S.
Dugald Stewart Edition, 1853 (original 1759)
Why study Adam Smith?

*Sentiments*, (TMS) provides a model of human conduct that seamlessly connects action in social groupings with that in markets.

Offers prior propositions "predicting" action where standard models failed decisively, 1990s. (They back-predict trust game outcomes.)

Offers propositions that suggest and predict action in unique new experiment designs. (Predict before knowing outcome.)

Connects human conduct in experimental games to broad social themes of property, beneficence, justice and wealth creation in stable societies.
Sentiments is NOT about:

• Max-U (own outcome), as in traditional neo-classical economics. Process is not: Action--> Outcome--> Utility. (Yet in Smith common knowledge of self-interest is essential for knowing who benefits or is hurt by an action, an input to our sociality.)

• Altruism (Hutcheson’s ‘benevolent sense’)

• Reason or the social contract (Hobbes)

• Social preferences [U (own, other); as in behavioral/experimental economics]
Sentiments IS about:

- Human sociality as other-regarding conduct
- Rule-following Conduct: Its propriety and fitness
- Rules emerge by consent & become conventions
- Accounting for social order in pre-civil society
- Both sympathy & mutual sympathetic “fellow-feeling” (empathy)
- Equilibrium if it exists is in rule space, not outcome space
- “Fair” meaning fair-play rules; “unfair” mean is foul
- Actions as signals conveying intentions in conduct
- And their meaning is read imperfectly from context
- Propriety evolved into property in the civil order.
Smith’s Axioms & Principles of Conduct

I. Fundamental axiom: Self-love (& non-satiation) is common knowledge; for each more is beneficial, less is hurtful. But in our process of maturation, of becoming social, “we humble the arrogance of our self-love to bring it down to what others will go along with.” (“go along with” appears 41 times). You cannot look your neighbor in the face and avow that ALL your decisions are driven by self-love.

II. Human desire (i.e., motivation for conduct) is inseparable from our sociality

III. Desire is expressed as a fundamental asymmetry between gains & losses
   A. Gain Domain: Desire for praise and praise-worthiness
   B. Loss Domain: Desire to avoid blame and blame-worthiness

   Gain/Loss asymmetry derives from the underlying joy/sorrow asymmetry.

IV. Actions are signals shaped by their propriety in the given circumstances or context

V. Circumstances, including payoffs, allow intentions conveyed in actions (signals) to be sent & read by others, but rule following needn't be a deliberate self-aware process.

VI. Equilibrium as harmony or resonance in rule space; discord motivates adjustment. (Experience with a homeless man as an example of rule error, discordance, and correction in rule space.)
Consider the following new “Trust" Game between anonymously paired individuals, similar to many such well-known two-person games studied in the 1990s with baffling results at the time.
Baseline Game NP (No Punishment, Trust)
Traditional Extensive Form Analysis of Trust game:

1. Common knowledge that all Players are strictly self-interested and non-satiated.
2. Only own payoff outcomes matter in choosing action.
3. Apply backward induction to the game tree.
4. Determine each player’s choice in reverse sequence of play.
5. Hence, if Player 1 passes to Player 2, the latter is motivated to move down.
6. Player 1’s best strategy is to move right, the “equilibrium” of the game.
No Punish Trust game
Standard self-interested action model fails, but a proposition in *Sentiments* indicates why 2/3 of Player 2s do not take most of the money (and why so many Player 1s might pass to them):

*Beneficence Proposition 1:* “Actions of a beneficent tendency, which proceed from proper motives, seem alone to require reward; because such alone are the approved objects of gratitude, ...” (*TMS*, 1759, p 78)
Analysis in *Sentiments* Involves: Benefit or hurt, inferred intentions, imagining other’s role and “self-command.”

1. Common knowledge that all Players are strictly self-interested, non-satiated.
2. Action determined by who is hurt or benefits from an action, and an inference of intent.
3. Hurt, benefit and intentions are inferred from opportunity cost of action taken.
4. Intentional Beneficence → Gratitude → Reward;
   Intentional Hurt → Resentment → Punishment (applies below);
5. Apply backward induction to the game tree to determine who benefits or is hurt from an action at each node and to judge intent.
6. Each Player’s “impartial spectator” imagines herself in the role of the other in judging intent and probable responses.
7. Forward play is a signaling game—a conversation—that conveys intent.
8. If Player 1 would cooperate in the Player 2 role, will Player 2 see it in the same way if given opportunity to act?
9. Will Player 2 cooperate, given unambiguous signal of Player 1’s beneficial intentions?
Results are consistent with model in Sentiments.

Knowing the action taken by Player 1, 18 of 27 Player 2s show gratitude, self-command. In population sampled, 2/3 conform to Beneficence Proposition 1.

Note: Random assignment implies that the same proportion of Player 1s would play right if they had been assigned position 2.

Then proportion of Player 1s deterred from down move by uncertainty that Player 2 is a person like them (my “type”) = 0.67 − 0.55 − 0.12
New trust games motivated by additional propositions in *Sentiments*
Beneficence Proposition 2: “Beneficence is always free, it cannot be extorted by force, the mere want of it exposes to no punishment; because the mere want of beneficence tends to do no real positive evil.” (TMS, p 78)

Hence, in trust games we should not expect Player 2s to feel resentment or be willing to incur cost to punish Player 1s for choosing not to be beneficent. That is their respected right.
Trust with Option to Punish Want of Beneficence (PWB) i.e. Failure to Trust

Note: We have added a dominated option. In Max U (own) analysis such options are irrelevant; in Sentiments they are essential to the analysis: the meaning in a choice depends upon other available options.
PWB? No, But Tst/Tsw reduced! Is trust signal now distorted by element of threat? Punish option deters cooperative play, although the option is not used!
Being sure: More data, but defection pattern continues to hold.
Justice Proposition 1: “Actions of a hurtful tendency, which proceed from improper motives, seem alone to deserve punishment; because such alone are the approved objects of resentment…” (TMS, p 78)

Suppose Player 2 defects on the offer of Player 1 to cooperate. JP 1 predicts that many Player 1s feel resentment, and are willing to incur cost to punish Player 2s.
Punish Hurt, Trust Game
NP (Trust) More 1s play down; signal is less credible under punishment threat! 43% of 1s punish. Beneficence must be free, cannot be extorted.
In *Sentiments*, Justice Proposition 1 Is the Key to the Origin of Property

Common feelings of resentment toward improperly motivated (i.e., intentionally) hurtful actions within close-knit communities is the origin of the civil order of law, and of punishment proportioned to resentment.

“As the greater and more irreparable the evil that is done, the resentment of the sufferer runs naturally the higher…” (TMS, p 83)

*Sentiments* combines this proposition with asymmetry of gains and losses to explain differential penalties applied to loss of property under law in nation states:
• To be deprived of that which we are possessed of, is a greater evil than to be disappointed of what we have only the expectation.

• *Breach of property, therefore, theft and robbery, which take from us what we are possessed of, are greater crimes than breach of contract, which only disappoints us of what we expected.*

• The most sacred laws of justice, therefore, those whose violation seems to call loudest for vengeance and punishment, are the laws which guard the life and person of our neighbour;

• the next are those which guard his property and possessions;

• and last of all come those which guard what are called his personal rights, or what is due to him from the promises of others.” (TMS, p 84; italics added)
Justice Proposition 2: “Though the breach of justice...exposes to punishment, the observance of the rules of that virtue seems scarce to deserve any reward”

Thus, there are no rewards for stopping at a red light or for not disturbing your neighbor. These are your duty under the rule of law.

As want of beneficence is not subject to punishment, so just action (want of injustice) is not subject to reward.

Under the rule-of-law classical liberal heritage, justice is a residue; it is what is left over after introducing penalties for unjust action. Society does good by discouraging the bad.
Testing Justice Proposition 2:
Adam Smith Bats 700, with 30% sweetening their reward to Player 2!
Sentiments and Wealth of Nations

Property rights: necessary but not sufficient in *Wealth*.

Smith adds what I call his Axiom of Discovery: “..the propensity to truck, barter and exchange...” Exchange is an expression of human sociality—Hume’s interested commerce, as contrasted with disinterested commerce.

*Sentiments, Wealth* both emphasize process not only outcomes.

*Wealth* defines a discovery process: Exchange $\rightarrow$ Prices $\rightarrow$ Facilitate Comparisons (grow more corn less hogs) $\rightarrow$ Specialization.

The neo-classical marginal revolution too eagerly abandoned process for equilibrium. (First S&D experiments seemed magical in finding equilibrium with only private information—we had no process thinking!)
From *Sentiments* to *Wealth* and Through Each to Human Betterment

Pre-Civil Society  
Propriety to Property  
Two Worlds; social/economic

**Sentiments**  
Fellow-feeling; Pleasures of mutual sympathy; self-command; Conduct as rules of propriety  
Rules of property; Axiom: Propensity to truck, barter, and exchange  
Wealth  
Human social-psychological betterment  
Human economic betterment

Civil Order of Society
References
